PB82-226051

Hillsborough County, Florida
Case History of a County Noise Control Program

Consumer Dynamics, Inc.
Rockville, MD

Prepared for

Environmental Protection Agency
Washington, DC

Feb 79

U.S. Department of Commerce
National Technical Information Service
NTIS

PB82-226051

United States
Environmental Protection
Agency

Office of Noise Abatement
and Control (ANR-471)
Washington, DC 20460

August 1979

EPA 550/9-79-404

EPA

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REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

72-101

EPORT DOCUMENTATION PAGE

1. REPORT NO. EPA 550/9-79-404

2.

3. Recipient's Accession No. PB 82-226051

Title and Subtitle
Hillsborough County, Florida
Case History of a County Noise Control Program

5. Report Date February 1979

6.

Author(s) Frederic C. May

8. Performing Organization Rept. No.

Performing Organization Name and Address
Consumer Dynamics, Inc.
11300 Rockville Pike, Rockville, MD 20852

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

Sponsoring Organization Name and Address
U.S. Environmental Protection Agency
Office of Noise Abatement and Control
Washington, D.C. 20460

13. Type of Report & Period Covered

14. EPA ONA

Supplementary Notes

Abstract (Limit: 200 words)

The report describes

A comprehensive study of the development of a county noise control with a property line ordinance, in the Southeastern United States.

Document Analysis a. Descriptors
County Noise Control Program
Hillsborough County
Property Line Noise Control

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

Availability Statement:

19. Security Class (This Report)

20. Security Class (This Page)

21. No. of Pages 152

22. Price

ANSI-Z39.18)

See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

Hillsborough County, Florida

Case History of a County Noise Control Program

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EPA Contract No. 68-01-4982

U.S. Environmental Protection Agency
Office of Noise Abatement and Control
Washington, D.C. 20460

August 1979

This report has been approved for general availability. The contents of this report reflect the views of the contractor, who is responsible for the facts and the accuracy of the data presented herein, and do not necessarily reflect the official views or policy of EPA. This report does not constitute a standard or regulations.

1a

ACKNOWLEDGEMENTS

This technical case study was prepared under EPA Contract No. 68-01-4982 by Consumer Dynamics, Inc. Rockville, Maryland The Project Manager was Hank Cox. The study was researched and written by Fredric C. May. Consumer Dynamics, Inc. expresses special gratitude to county officials of the Environmental Protection Commission, Hillsborough County, for their time in helping to develop this case study.

EXECUTIVE SUMMARY

This technical case study of the noise program in Hillsborough County, Florida, was developed to enable noise officials from other counties and communities to benefit from Hillsborough County's experience in developing and enforcing a noise ordinance (rule). This study was prepared under the direction of the Environmental Protection Agency's Office of Noise Abatement and Control.

Study of this county's noise control program was conducted not only because it is typical of active programs in the southeastern United States but also because Hillsborough County officials demonstrated that numerical noise limits are preferable to nuisance noise laws in resolving noise problems. However, the Hillsborough County Environmental Protection Commission (EPC) which enforces the noise rule also enforces air and water rules so that EPC staff works only part-time on the noise program on a limited annual budget. Partly because of these limitations, and partly because of legal procedures required for disposition of a willful noise violation, voluntary compliance is relied upon for resolving the majority of noise problems. In spite of current limitations and past program development problems, support for enforcement of the county noise rule continues to grow.

Description of the County

Because of the warm year round climate and access to major transportation systems and port facilities, a diversified mix of heavy, medium, and light industry has located to Hillsborough County, Florida. The fifth largest county in the State, with a population of 655,600 (1/77 figure), Hillsborough County includes three major municipalities. Tampa is the largest with nearly one-half of all county residents. The Greater Tampa area which includes parts of other counties is growing at the rate of over 200 persons per day.

Noise in the county is generated from several major sources. Some residents are affected continuously by noise from low-flying aircraft accessing the Greater Tampa area's two major commercial airports and MacDill Air Force Base. Another continuous source of noise is generated 24 hours a day by heavy traffic traveling through the county on a network of interstates and State roads, some of which serve port facilities at Tampa. Except for a few areas where residential areas have encroached on industrial zones as a result of bad zoning practices, most of the area's industry is located in industrial parks away from densely populated areas. Therefore, industrial noise sources do not affect most county residents.

History of Noise Program

Well before numerical noise standards were promulgated, the Florida State legislature passed the Hillsborough County Environmental Protection Act which in turn created the Environmental Protection Commission (EPC). The Act passed in 1967 included only air and water pollution rules, and was amended in 1972 to include noise as a pollutant without setting specific noise level limits.

As it became evident to EPC staff in 1973 that enforcing the nuisance noise provisions of the 1972 Act was ineffective in solving noise problems, Roger Stewart, Director of the EPC, and his staff drafted a noise rule using New York City and Chicago ordinances as models. Industry representatives convinced the Environmental Protection Commissioners that the proposed ordinance was based on unsuccessful ordinances, and the county should not adopt a rule based on them.

Because of continuing industry opposition to a numerical noise rule, nearly three years passed before proposed noise rules were approved by the EPC commissioners for submission to a formal public hearing. Delay was requested by industry, which was afraid a new noise rule would favor competition in other parts of Florida not affected by noise legislation. This delay allowed time for the State to publish a Model Community Noise Control Ordinance. But even with the model ordinance, the Noise Task Force established by industrial representatives of the Greater Tampa Chambers of Commerce was also unable to design an ordinance that was acceptable to industry. Finally, early in 1976, it was announced that a proposed rule based on the State's model ordinance would be presented to the EPC commissioners. The proposed rule drafted by the EPC staff was short and uncomplicated, did not invoke substantial industry criticism, and was subsequently passed in June 1976. But because the two raceways in the county could not comply with the 1976 residential property line standards, the rule was amended in 1978 significantly raising allowable noise levels that could be made by the raceways.

The Noise Rule and Its Enforcement

The Florida Model Community Noise Ordinance contains a comprehensive list of prohibited noise activities. Since a violation of any of those activities would also be a violation of permissible sound limits by receiving land use, the list was not incorporated into the final county noise rule. Table I of the rule provides a list of those numerical limits which serve as the basis of enforcement action in Hillsborough County.

TABLE 1

SOUND LEVELS BY RECEIVING LAND USE

Receiving Land Use Category	Time	Sound Level Limit, dBA
Residential, Public Space, Agricultural or Institutional	7 A.M. - 10 P.M.	60
	10 P.M. - 7 A.M.	55
Commerical or Business	7 A.M. - 10 P.M.	65
	10 P.M. - 7 A.M.	60
Manufacturing or Industrial	At All Times	75

Another main feature of the county rule adapted from the State's model ordinance was a provision restricting noise emissions from air conditioners and air-handling equipment. Because of the year round warm subtropical climate, air conditioners are used most of the year in most parts of the State. As a result, noise from this equipment can create continuous major noise problems. Table 2 of the rule lists noise limits for air conditioners and air-handling equipment.

TABLE 2

SOUND LIMITS FOR AIR CONDITIONERS AND AIR-HANDLING EQUIPMENT

Measurement Location	dB(A)
Any point on neighboring property line	60
Center of neighboring patio	55
Outside the neighboring living area window nearest the equipment location	55

Because the State regulates noise of vehicles traveling on the public right-of-way, enforcement of vehicle noise by the county is limited to noise from off-road use of recreation vehicles, motorcycles, and competition motor vehicles. With the exception of noise limits allowed at raceways, all other vehicles operated off-the-road must conform to the limits listed in Table I of the county rule.

Before a noise violation can be prosecuted in a court of law, several involved legal actions must be initiated. A complaint of noise must be first received and investigated by the EPC complaints section. If the violation is not resolved through voluntary compliance, either a "Notice of Alleged Violation" or a "Citation to Correct Violation" is issued. All facts of the particular problem are then given to the Enforcement Section of EPC.

Because of the complicated legal procedures and the length of those proceedings it is not difficult to understand why noise problems in Hillsborough County are resolved 99 percent of the time through voluntary compliance actions. Most of the complaints received and resolved by EPC staff involve a single complainant and an identifiable alleged noise violator.

Program Results

In spite of the fact the noise program operates on limited fiscal and personnel resources, the program is sound and has produced abatement results proportional to its level of operation.

Key Aspects

There are several key aspects pertinent to the program's achievements:

1) Hillsborough County demonstrated that enforcement of numerical noise limits is more effective than nuisance laws in resolving noise problems.

2) Close cooperation with area news media ensures widespread publicity responsible for stimulating public awareness and subsequent program support.

3) A complete case workup is kept on each complaint for use in finding solutions to other noise problems. Follow-up on noise complaints ensures complete resolution of the noise problem.

4) As a result of the complaint chief's personal interest and subsequent public awareness of environmental noise in county schools, a bond issue was passed to air-condition the schools to abate noise from traffic and aircraft.

5) All personnel working on the noise program have a minimum of a college degree or have equivalent training, and receive noise certification upon successful completion of a 2-day course given at the University of South Florida's Engineering Department.

In summary, the Hillsborough County rule specifies maximum sound level limits by receiving land use and is enforced by response to noise complaints. Although the program operates on an austere budget and low manhour utilization, the program has produced significant results.

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I. DESCRIPTION OF HILLSBOROUGH COUNTY

To understand the need for and implementation of the noise rule in Hillsborough County, it is necessary to first review how environmental, social, economic, and political factors interact to create the need for noise legislation in order to solve noise problems in the area.

Environment

Hillsborough County is at the midpoint of Florida's west coast and is the State's fourth largest county. It features one of the world's finest protected natural habors.

The climate which is warm and humid all year is a major enticement to the area for both tourism and business. Moderate temperatures range from a mean 60°F in January to an August mean of 82°F.

Because there are few hills and other natural barriers on the county's 1,040 square miles of flat terrain, sound travels nearly unimpeded from a noise source such as an interstate highway to nearby residences.

Demography

The Tampa Metropolitan Area, which includes parts of other Florida counties, is growing at a rate of 242 persons per day, averaged out over a 5-year period, bringing the estimated 1975 population totals to 1,453,649, a gain of 441,055 persons since the 1970 census. January 1977 figures indicate that of 655,600 residents living in the county, 296,400 live in Tampa. The median age of residents living in Hillsborough County is 28.5 years, and 30.8 years within the city (according to 1970 census figures). The other two incorporated municipalities in the county are Temple Terrace and Plant City.

By 1980, it is projected that 2.9 million persons will be residing in the Greater Metropolitan Area -- a 20 percent increase over the 1975 estimate. Also, by 1980, the population of this area will represent almost 30 percent of the 9,768,300 projected residents of the State of Florida.

Projections indicate that during the next four years the average annual population increase in Hillsborough County will be 3.6 percent. Past population increases have shifted the prime growth areas from the city to the North, Northwest and Brandon areas of the county. These areas are projected to increase in population by 100 percent by 1980.

The northwest county area has been the leader in growth for the past 10 years with the North Tampa and Brandon areas also showing large increases. The county has grown by 148,700 persons during the past 5 years -- a 6 percent increase per year. With continuing availability of housing in these parts of the county, growth should continue.

Several large development firms own thousands of acres that will be developed to meet anticipated growth.

Additional population will require substantial increases of the entire range of goods and services presently demanded by the current residents of the area.

Economy

Hillsborough County's broad-based economy is not dominated by any single industry. For example, Tampa's more than 700 manufacturing firms represent an even mix of heavy, medium and light industry, employing 14.3 percent of the county's workers.

During the decade 1967 through 1977 Tampa and Hillsborough County have experienced this growth:

	PERCENT CHANGE 1967-1977
COMMERCE	
Customs Receipts (Port of Tampa	184.9
Motor Vehicle Registration (County)	70.4
Sales Tax Collections (County	334.9
CONSTRUCTION (Value Building Permits)	
Tampa, Corporate Limits $	66.3
Tampa, Suburban Area $	286.5
Total, Greater Tampa Area $	162.3
EDUCATION *	
Daily Membership of Schools (County)	18.9
EMPLOYMENT **	
Total Non-Agricultural (County)	51.7
Manufacturing (County)	6.5
FINANCE	
Bank Clearings (City) $ ***	69.3
Bank Deposits (City) $ ****	158.4
POPULATION	
Hillsborough County	41.7
Tampa (Corporate Limits)	7.0
TRANSPORTATION	
Airline Passengers	151.6
Air Freight (Pounds)	91.8
Port Tonnage (Port of Tampa)	78.7
UTILITIES	
Electric Consumers (Service Area)	53.5
Electric KWH Used (Service Area) **	86.9
Telephone Stations (County)	103.1
Water Consumers (City)	17.0
Water Consumed (Gallons) City ***	29.7

Prepared by
Committee of 100
Research Department

As seen in the chart, motor vehicle registrations increased 70.4 percent from 1967 to 1977 in Hillsborough County.

Total motor vehicle registration for the 17-county Tampa marketing area increased by 7.6 percent between 1973-74 and 1974-75, more than any other area of Florida. As a result, a large number of automotive-oriented industries such as warehouses and supply houses have located in this area.

Dynamic expansion of diverse industries, increase in tourism, population growth and a very strong upward trend in earnings is projected to raise the effective buying income of residents in the Tampa Marketing Area from $11 billion in 1975 to $19 billion in 1980.

Approximately 29 percent of the Florida effective buying income and 29 percent of the State population will be concentrated in the Tampa Marketing Area by 1980.

As seen in Figure 1, the highest income groups in Tampa are located in an area stretching across the peninsula just south of Tampa International Airport including Davis Islands across Hillsborough Bay directly to the east. This area is located in the central portion of a triangle formed by three of the Greater Tampa Area's four major airports. Not only is that area affected by a large number of low flying aircraft, it is also affected by noise from I-75, State road 685 and other adjacent smaller roads. Lower income groups live closer to the area's airports.

In the county, high income groups live in a section northeast of the airport, in Temple Terrace and in the northeast section of Plant City. Middle income groups in the county live in sections just to the northwest and southeast of Tampa. Income distribution for the county is shown in Figure 2.

Major Employers

Hillsborough County has over 280,000 civilians in its labor force which makes up 7.6 percent of the State's 3.7 million total. The Tampa-St. Petersburg area, consisting of Hillsborough, Pinellas and Pasco counties, contains a total of 16 percent of the State's labor force.

An expected surge in Florida's employment will increase the Tampa area's share to over 19 percent of the State's labor force by 1980. According to the Greater Tampa Chamber of Commerce, this will make the area one of the fastest growing for employment opportunities in the South.

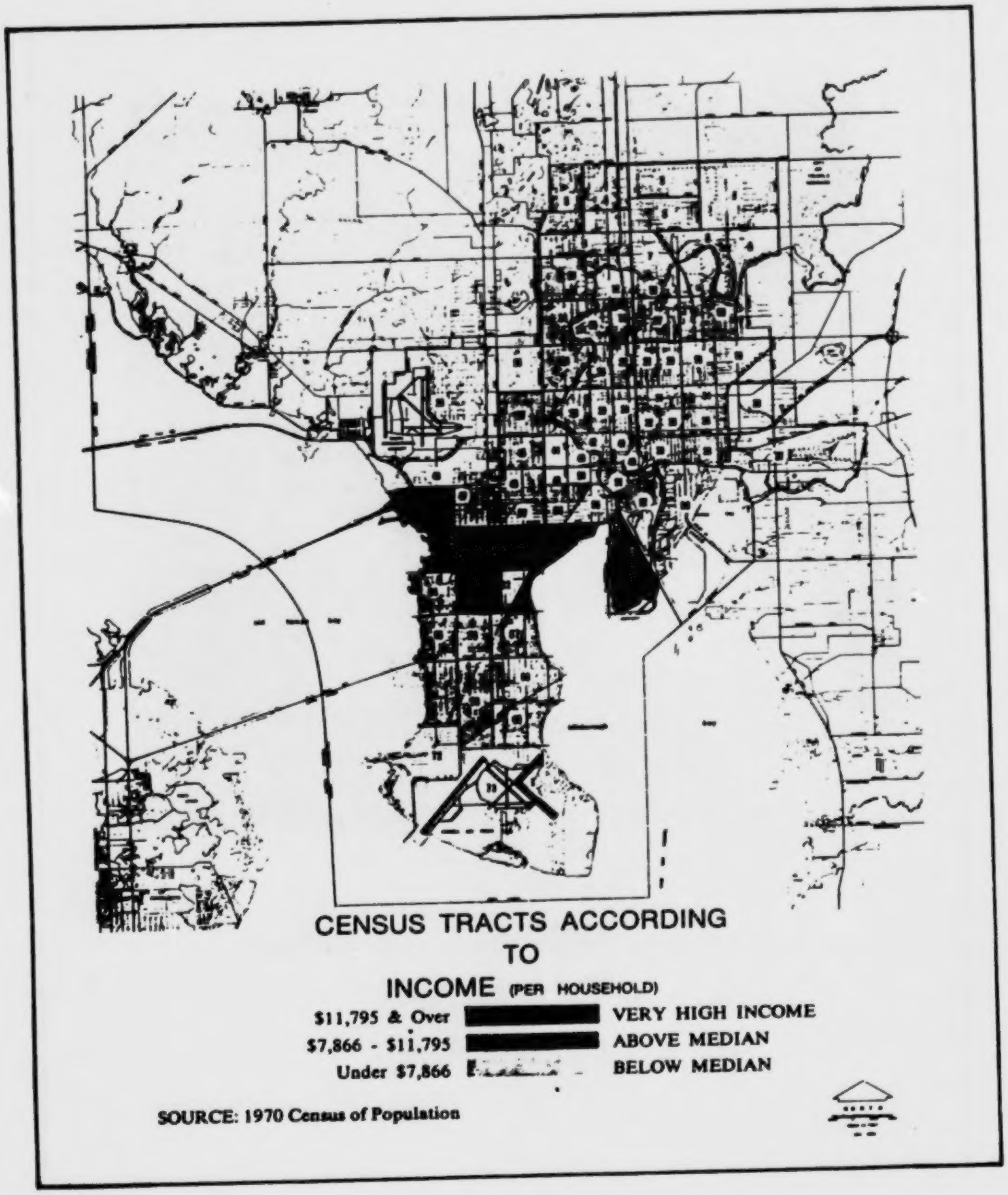
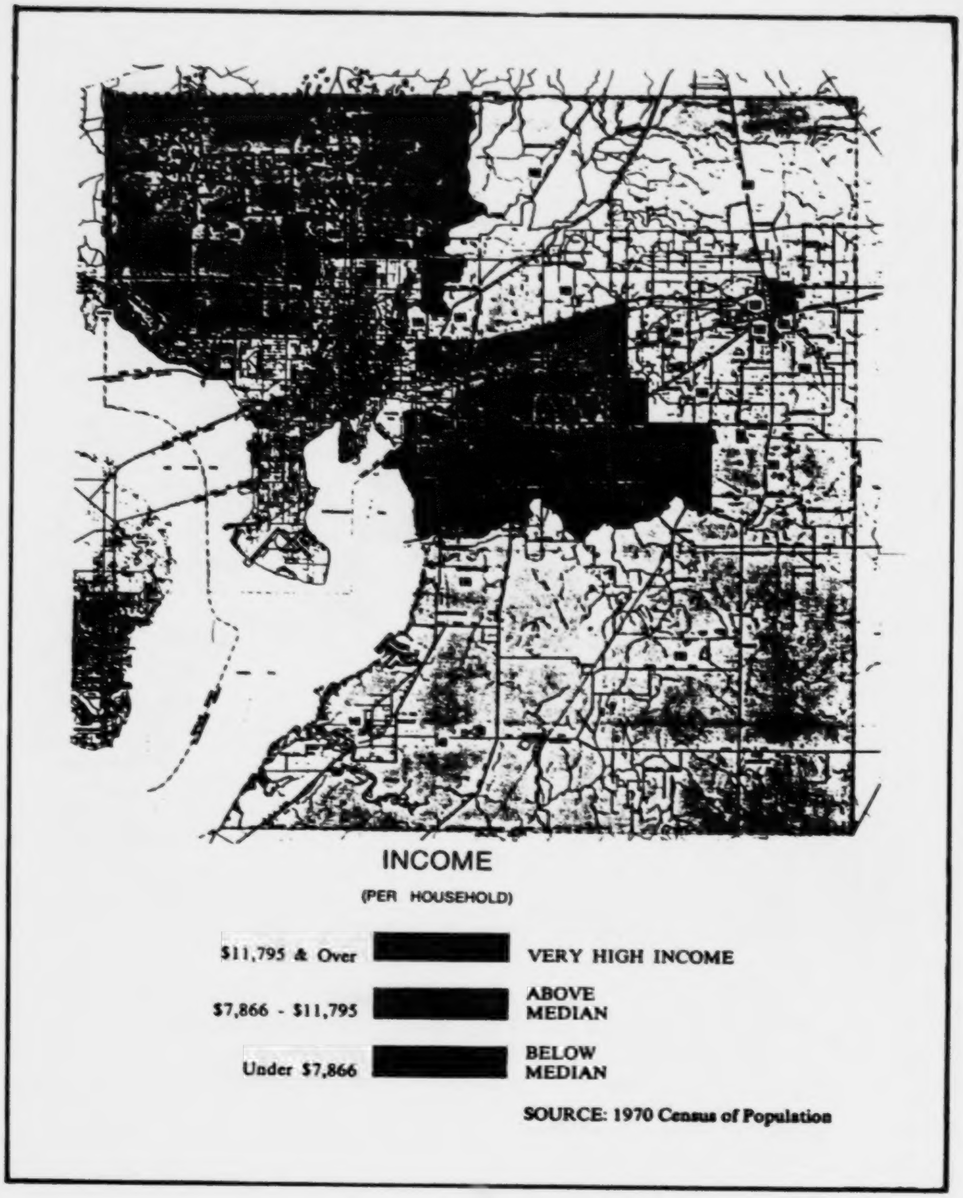

CENSUS TRACTS ACCORDING
TO
INCOME (PER HOUSEHOLD)
$11,795 & Over VERY HIGH INCOME
$7,866 - $11,795 ABOVE MEDIAN
Under $7,866 BELOW MEDIAN
SOURCE: 1970 Census of Population

Figure 1. Income Distribution in the City of Tampa


INCOME
(PER HOUSEHOLD)
$11,795 & Over VERY HIGH INCOME
$7,866 - $11,795 ABOVE MEDIAN
Under $7,866 BELOW MEDIAN

SOURCE: 1970 Census of Population

Figure 2. Income Distribution in Hillsborough County

As of 1978 these firms employed 1,000 or more employees:

Firm	Number of Employees
Hillsborough County	7,980
City of Tampa	5,790
General Telephone Company	5,390
Tampa Electric Company	2,345
Maas Brothers Department Store	2,160
Honeywell, Inc.	1,350
Gardinier, Inc. (Mineral Products)	1,235
Singleton Packing Corporation	1,065
Florida Mining and Material Corp.	1,000
Westinghouse Corporation	1,000

Transportation

Continued growth is ensured by businesses desiring good local, national and world marketing distribution services.

Transportation then, is a key to the area's growth as a distribution center. Twenty-two interstate and 25 intrastate motor common carriers provide overnight truckload service to all major Florida cities and to such points as Atlanta, Birmingham, Charleston, Charlotte and New Orleans.

The Seaboard Coastline (SCL) Railroad, eighth largest in the nation, serves Tampa with fast freight that puts carload shipments in New York or Chicago on the third morning. The Tampa network of 2,096 track miles are second highest in the SCL's Miami-to-Richmond system. Expedited piggyback service reaches all major U.S. markets.

Hailed internationally for its design and efficiency, Tampa International Airport is located just 4-1/2 miles from downtown. Eleven major airlines and several regional carriers operate from a facility capable of accommodating all commercial aircraft, including the new wide-body jets.

The U.S. Postal Service Center at the Tampa airport is the first such major postal facility at a major airport. It provides single-day service to major U.S. cities.

Tampa and the county are also served by six general aviation facilities and Peter O. Knight Airport, an executive airport within a mile of the downtown business district.

The closest large U.S. port to the Panama Canal, Tampa's port is eighth largest in the nation, processing 41.3 million tons in 1976. By 1982, the channel will be deepened to permit large bulk cargo vessels to enter the port facilities.

Number of County Students

Whenever there are a large number of secondary and high school and college-aged students in an area, there is a high probability noise will be generated from their activities. Noise from minibikes, motorcycles, and rockbands have generated many noise complaints.

Hillsborough County's 129 public schools are consolidated into a single school district, which supplements its kindergarten-through-12th grade curricula with special programs for physically and emotionally disadvantaged students, as well as with vocational, technical and adult education programs. Private and parochial schools also cover preschool through high school.

Higher education offers a variety of opportunities in Hillsborough County. More than 12,000 students are enrolled in Hillsborough Community College's college transfer, career training, community services and weekend programs at four campuses. On the college level there are three facilities serving Hillsborough County. Florida College, a private 2-year institution, attracts 440 students to its Temple Terrace campus, just north of Tampa. The University of Tampa with its 2,300 students is located just across the Hillsborough River from downtown Tampa. The University of South Florida opened its campus in 1960, northeast of Tampa and is one of the Southeast's 10 largest universities with a student body of more than 23,000.

County Government

County Government is administered through a five-member board of county commissioners who sit once a month as the Environmental Protection Commission (EPC). The commissioners are elected officials while the Director of the EPC is appointed. The EPC was created by the Hillsborough County Environmental Protection Act in 1967.

II. HISTORY OF HILLSBOROUGH COUNTY'S NOISE RULE

After the passage of the first national legislation on noise control, the Florida Department of Pollution Control (currently the Department of Environmental Regulation) became interested in looking into noise problems throughout the State. As one of the first steps to finding solutions to those problems, Chapter 67-1504, Laws of the State of Florida for Hillsborough County was amended in 1972 to include noise as a pollutant.

Because the Florida Department of Pollution Control (FDPC) had been receiving public complaints related to noise on an increasingly frequent basis, it funded five universities in separate localities of the State to provide Florida communities with competent consultation services in the development of local noise control programs. In 1974, Dr. William Smith, a mechanical engineering professor at the University of South Florida was awarded one of the five technical support grants. Under the grant, he and his faculty were to provide these services:

1. Review existing noise ordinances and recommend modifications, additions and other changes to meet specific needs of a municipality;
2. Advise on the content and scope of a new ordinance, if none existed at the present;
3. Conduct specialized noise surveys and analyses to develop numerical limits for incorporation into noise ordinances; and
4. Train enforcement personnel in the proper use of measuring equipment, once a method of enforcement is defined.

Prior to award of the grant Dr. Smith had provided technical assistance to both State and local noise programs.

Using the Chicago and New York noise ordinances as guides, Dr. Smith, EPC Staff Director Roger Stewart, and EPC Complaints Chief Robert Jones together drafted the first numerical noise rule for Hillsborough County. This proposed rule, submitted in 1972 to the county commissioners, was rejected mainly because of local industry opposition and opinion that the proposed rule was based on unsuccessful ordinances. (See Appendix D.) As a result, delay during the next 3 years was incurred while the State developed the Florida Model Community Noise Control Ordinance. EPC staff were instructed to use that ordinance as a guide and develop a noise rule in conjunction with the industry committee on noise prior to holding any formal public hearing. In compliance with the latter request, EPC staff met in several workshops with the Noise Task Force of the Greater Tampa Chamber of Commerce.

The operating committee of the Noise Task Force was chaired by Cecil Kline, President of the Hearex Occupational Health Services, Inc., Tampa. Kline was asked to give redirection to the committee. As chairman, Kline obtained copies of noise ordinances passed by other cities, and used those ordinances to design one appropriate for Tampa. When the proposed ordinance was presented to the full Noise Task Force committee, they went through it paragraph by paragraph. The operating committee chaired by Kline was requested by the full committee to do additional research and consider the suggested changes.

Kline's operating committee then sought the expertise of Bragdon and Miller to refine the draft document. Clifford Bragdon, professor of City Planning at Georgia Tech and a noise consultant to EPA, worked with the Noise Task Force along with Richard Miller, a noise engineer from the EPA Regional Office in Atlanta. Miller had completed a noise study for Nashville, and airport studies for EPA. In the revised ordinance they incorporated from the State's model community noise ordinance provisions limiting the noise levels of motor vehicles, as well as noise levels by zones. The noise zoning standards were somewhat different from those in the model State law in that Kline's committee included grandfather clauses requiring the planning board to consider noise zoning standards in establishing a new zone. The proposal also required that the noise level standard be included in property deeds to ensure noise compatibility of adjacent properties to:

1. Protect against encroachment;
2. Protect industry with property line noise levels; and
3. Ensure that the property on which an industrial plant was located had been zoned for the maximum allowable levels as established in the ordinance.

But again, industry which had had several previous legal confrontations with the EPC over other environmental issues remained adamant against the passage of any noise rule in any form. Lack of cooperation from opposing members of the full Noise Task Force Committee prevented yet another proposed ordinance from going before a formal public hearing.

Kline believes a noise ordinance must be developed using a 24-hour octave band analysis. But even he wasn't really convinced a noise rule was necessary since a comprehensive county-wide noise study had not been accomplished. The sound pressure readings made by Dr. Smith's engineering students at the property lines of several of the county's factories and commercial establishments in the early 70's could not be used to develop noise contours, or to develop a noise index of ambient day-night levels. Dr. Smith disagreed with the need for extensive monitoring to obtain a community noise profile. He believed that it's a one-to-one confrontation between someone making the noise and someone who's offended by it.

The two proposed sets of rules -- the one by Kline's committee and the other by EPC's Stewart and Smith--differed by the inclusion of specifically prohibited acts in Kline's rule. The EPC staff believes that enforcement of those kinds of provisions necessarily requires the use of police power to quell, what are in actuality, disturbances of the peace.

Before the final noise law was passed, a considerable amount of opposition to numerical noise limits had been generated by some local government officials. In the face of that opposition, the need for specific decibel limits at property lines was demonstrated in an incident in which the city of Tampa changed the zoning of a parcel of land adjoining a manufacturing plant from manufacturing (M-1) to residential use (R-1). After houses were built on the land, residents complained about the noisy operations at the tile plant. When EPC staff investigated the situation, the plant manager of the tile plant indicated he would have difficulty reducing noise from the plant without specific guidelines. When the complaints chief recommended using the proposed night time level of 55 dBA at the nearest residential property line, the plant responded by implementing the recommendations of a noise consulting firm and reduced noise to the 55 dBA level.

But in spite of the fact the plant complied with the recommended dBA level, nearby residents still complained. Incompatible zoning prevented further resolution of complaints by either the EPC or the Tampa City Council. The complaints chief said he believed this was why the city did not fight the noise rule at the public hearing just before it was passed in June 1976.

In actuality, there were three main approaches to the development of the Hillsborough County Noise Rule prior to the final rule in June 1976:

1. No new rule -- No need was evident since enforcement of noise nuisance provisions was already part of the Hillsborough County Environmental Protection Act. Outspoken critics of any new rule were representatives of local industrial firms.

2. A more generalized rule that did not stipulate specifically prohibited acts, and one which could be enforced by EPC staff on a complaint basis using property line standards. Proponents were Dr. Smith and Roger Stewart.

3. A comprehensive rule which would have required police power to enforce violations of specific prohibited acts. Proponents were led by Kline endorsed by Bragdon.

The approach that was taken in the final rule is summarized in item 2, above.

In Table 3 are listed the milestones of events which led to the eventual noise rule after four years of effort by EPC staff:

TABLE 3

History of the Hillsborough Noise Rule -- A Compilation of Tampa Times/Tribune Newspaper Articles

8/20/72		Public Hearing announced. Director of Hillsborough County Aviation Authority stated that he believed FAA's responsibility for setting noise laws would preempt any local ordinance. Stewart said proposed noise laws are general enough to deal with flagrant violators.
8/26/72	Tribune	Chamber of Commerce requires Hillsborough Commission to postpone hearing 30-90 days. Stewart said Hillsborough County would lose $81 K in Federal funds if rules not passed by 10/1/72. Noise and air rules tied together. M. Davis, Chamber President opposed to proposed noise rule.
10/13/72		Concrete industry offered stiff resistance to any regulation of noise in Hillsborough County saying that a noise rule would eliminate many jobs.
5/8/73	Times	Stewart recommends adoption of rules; during June, pollution officials were to draw up rules prior to hearing.
6/12/73	Times	Stewart to present HCC (EPC) with proposed rules which included different limits than those now in effect (1979).

Table 3 (continued)

History of the Hillsborough Noise Rule -- A Compilation of Tampa Times/Tribune Newspaper Articles

8/4/73		Public workshop announced at which opinions to the proposed law may be aired. Workshop sponsored by the Hillsborough County Environmental Protection Commission.
1/15/74	Times	Smith recommends county noise ordinance level, has worked in cooperation with Stewart. Smith received $6K grant from Florida State to provide consultation services to locals. Smith wants law based on reliable scientific testing of human response and based on real criteria for determining what constitutes a noise disturbance.
3/7/74	Tribune	Bragdon urges (3/6) Tampa business leaders for Tampa to be leaders in noise control in the county. The Georgia Tech noise consultant addressed the environmental protection committee of the T. C. of C.
3/7/74	Times	Bragdon states it would cost 7¢ per capita to maintain noise control in the county. Environ. Council of Tampa Chamber of Commerce is also working on a proposed noise ordinance. Bragdon recommends 24-hour analysis on impact of ambient noise levels.
6/14/74		EPC staff sent back to drawing board (6/7) on ordinance and told to meet with industry reps. to get acceptable compromise before a public hearing is called. Industry officials say need for rule was not demonstrated.
2/13/76	Tribune	Stewart proposed a county noise rule 2/12. County Commissioners had little comment on the rule prior to public hearing.
3/12/76	Times	EPC Workshop on proposed noise ordinance open 3/11. Stewart offers to personally find a solution to a complainant's noise problem.

Table 3 (continued)

History of the Hillsborough Noise Rule -- A Compilation of Tampa Times/Tribune Newspaper Articles

6/10/76	Times	Ordinance passes in Hillsborough County after three years of work. Stewart says, ". . .simple little rule that's not going to hurt anybody. If nobody hears it or is affected by it, you can make all the noise you darn well please." Rule passes 4-0, with one commissioner absent.

III. THE HILLSBOROUGH COUNTY NOISE RULE AND ITS ENFORCEMENT

Because of continuing opposition to a numerical noise rule from both local industry and the Hillsborough County Commissioners, EPC staff members, with assistance from Dr. William A. Smith, drafted a set of uncomplicated but enforceable noise rules early in 1976. The basic philosphy that guided the development of those rules was not to eliminate noise but to reduce it to the safest levels economically possible. The noise rule should provide "...levels...we can live with," Dr. Smith told Tampa Tribune reporters in January 1976.

The Noise Rule

Once the State's Model Community Noise Control Ordinance (Appendix B) was published by the State Department of Environmental Regulation in 1975, the EPC staff incorporated provisions of the State ordinance into a draft noise rule that was subsequently easier for industry opposition to accept. Such an ordinance, industry believed, was more equitable if the fiscal burden of compliance with a Hillsborough rule would affect competitors in other parts of the State where ordinances were also based on the State's model ordinance.

Permissible noise levels specified in the county rule are regulated by receiving land use as in the model ordinance. But many of the specific prohibitions listed in "Prohibited Acts," Article IV of the model ordinance were not incorporated into the final county noise rule at the urging of county attorney John Bakas. Provisions not specifically included were those on the use of radios, TVs, musical instruments, loud-speakers, street sales in noise-sensitive areas, animals, loading and unloading, construction, and noise-sensitive areas. The last one, noise-sensitive areas, is enforced by the municipalities through codes regulating noise levels around hospitals and schools. Table 1 of the noise rule specifies permissible sound limits:

SOUND LEVELS BY RECEIVING LAND USE

Receiving Land Use Category	Time	Sound Level Limit, dBA
Residential, Public Space, Agricultural or Institutional	7 A.M. -- 10 P.M.	60
	10 P.M. -- 7 A.M.	55
Commercial or Business	7 A.M. -- 10 P.M.	65
	10 P.M. -- 7 A.M.	60
Manufacturing or Industrial	At All Times	75

Sound level limits are specified for air conditioning or air-handling equipment in Table 2 of the noise rule:

Measurement Location	dB(A)
Any point on neighboring property line	60
Center of neighboring patio	55
Outside the neighboring living area window nearest the equipment location	55

Other specific provisions of the rule regulate pure tone emissions (see Appendix A, 1-10.01K), off-road use of motorized vehicles, and motor vehicles in competitive events. Enforcement exemptions include noise during emergencies, parades and cultural events, noise generated from operation of lawn and garden equipment and agricultural implements in both residential and agricultural areas, and disturbance from the unamplified human voice and from reasonably cared-for domestic animals.

The rule promulgated on June 10, 1976 was amended on April 13, 1978. The amendment increases the permissible noise made by a raceway from 55 dBA to 78 dBA at or within residential property lines. It also extends the operating hours, and requires that vehicles must use exhaust mufflers. Details of the amendment and the controversy surrounding it will be given in a later chapter. The county noise rule is included in Appendix A-1 in its entirety.

Chapter I-10, Noise Rules of the Hillsborough County Environmental Protection Commission supplements Chapter 67-1504, Hillsborough County Environmental Protection Act (HCEPACT) (Appendix A-2) enacted by the legislature of the State of Florida. Thus it is readily apparent that the ultimate enforcement authority of the county noise rule is derived from State law. All of the enforcement procedures are specified in the HCEPACT.

Enforcement Procedures

In most cases noise abatement in Hillsborough County results from enforcement action initiated by a complaint against an annoying continuous noise or intrusive noise. When noise is generated in a steady state at low frequencies it can often be ignored even if that noise is measurably loud. But when noise is heard above ambient levels (noise present continuously) it can intrude and interupt activities at what is considered usual noise levels. When noise is emitted above ambient environmental levels, complaints are most often generated.

In Hillsborough County, noise enforcement begins with a noise complaint, and rarely before. Complaints on intrusive noise may range in severity from serious interruptions of classroom activities by noisy trucks, to less serious annoyance from noise of an occasional but regular use of a neighbor's trail bike. The degree of enforcement of the noise rule depends on who is affected and when. In the rest of this chapter, complaint and enforcement procedures will be discussed in detail. Succeeding chapters will deal with specific types of complaints and how some of them have been resolved.

The complaint procedure is usually initiated by a telephone call. Although four people in EPC's Complaint Section share varying responsibilities in the investigation of noise complaints, the primary responsibility for resolving noise complaints falls on the complaints chief.

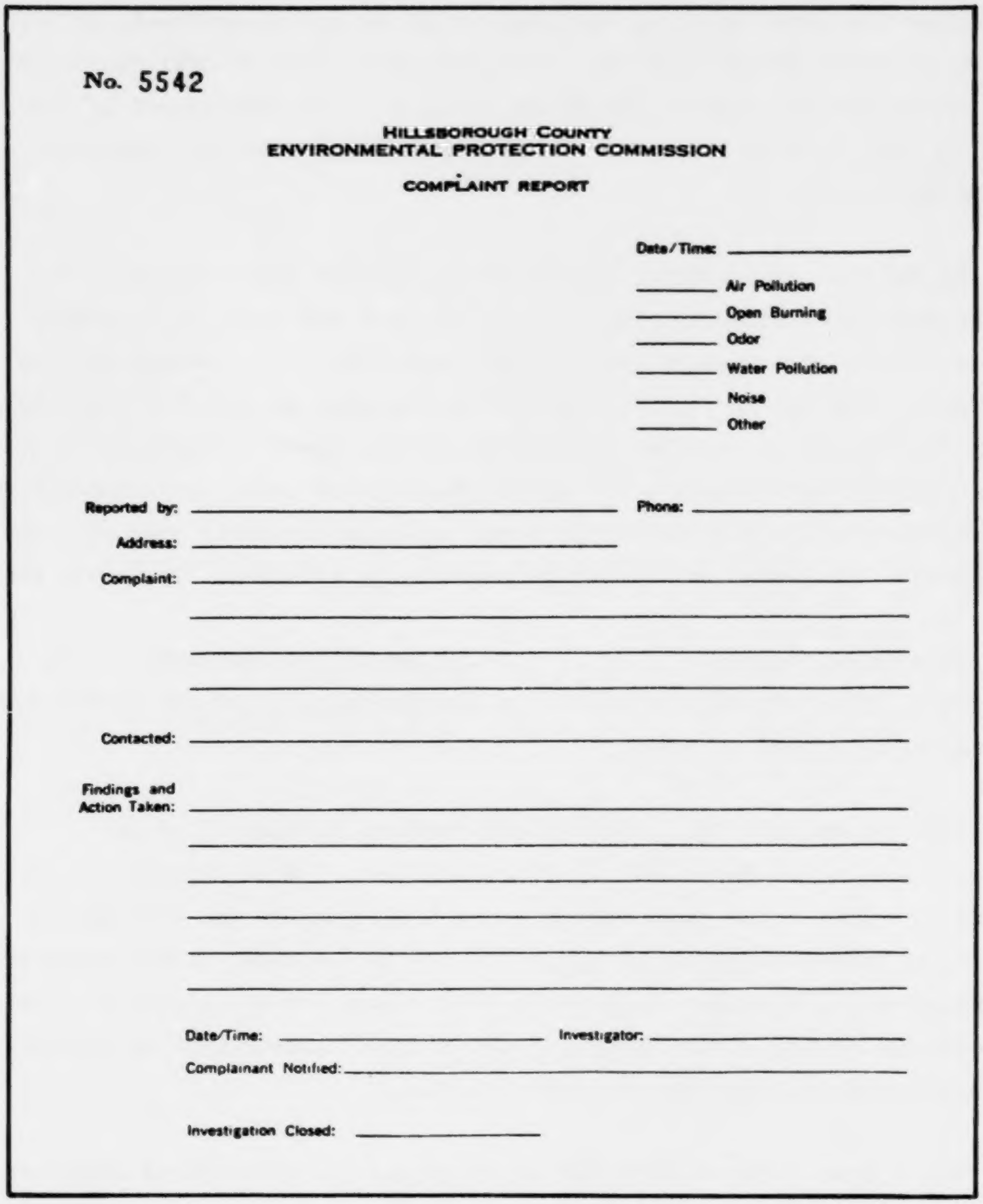
Calls coming in to the complaint section after normal work hours are handled by an answering service that determines what response may be required. If calls warrant an immediate response, the complaints chief is notified regardless of the hour. If they are what the complaints chief has labeled as "upset" (incidental disturbances by intrusive noise) calls, they are relayed to the EPC staff once they arrive at the office in the morning.

Response is initiated when an information worksheet is prepared (Figure 3) containing:

1. Complainants name and address;
2. Source, frequency and duration of noise;
3. Findings of the interview with noise violator.

Occasionally complaints are received from people who fear retribution from the noise offender and want to remain anonymous--which is frequently the case when motorcycles are the source of the complaint. Even without the name, telephone number, or address of the complainant, resolution of the noise problem is still attempted.

Sound measurements are taken with any meter on hand. The rule requires Type II or better. In some cases monitoring clearly is not necessary. Sections 17 and 18 of the Hillsborough County Environmental Protection Act and Chapter I-10.03 are used to cite for noise disturbances. According to the county ordinance, a refrigerator truck in a neighborhood is a disturbance regardless of how much noise it makes. Although the county law would preempt any municipal noise ordinance stipulating numerical noise limits, no municipality in the county has such an ordinance. For example, even though the City of Tampa has a noise nuisance law, city police usually only reprimand a noise violator without any follow-up enforcement action. Complaints on the same noise violation are subsequently received by the county noise complaint section.



No. 5542

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION COMMISSION

COMPLAINT REPORT

Date/Time: ______________

______ Air Pollution
______ Open Burning
______ Odor
______ Water Pollution
______ Noise
______ Other

Reported by: ______________ Phone: ______________

Address: ______________

Complaint: ______________

Contacted: ______________

Findings and Action Taken: ______________

Date/Time: ______________ Investigator: ______________

Complainant Notified: ______________

Investigation Closed: ______________

Figure 3. Complaint Report.

After the noise violator has been contacted and interviewed, an EPC complaints staff member will call the complainant back to tell him or her what action was required of the noise violator. The complainant is also asked to call back if the noise violator does not comply and continues making the noise.

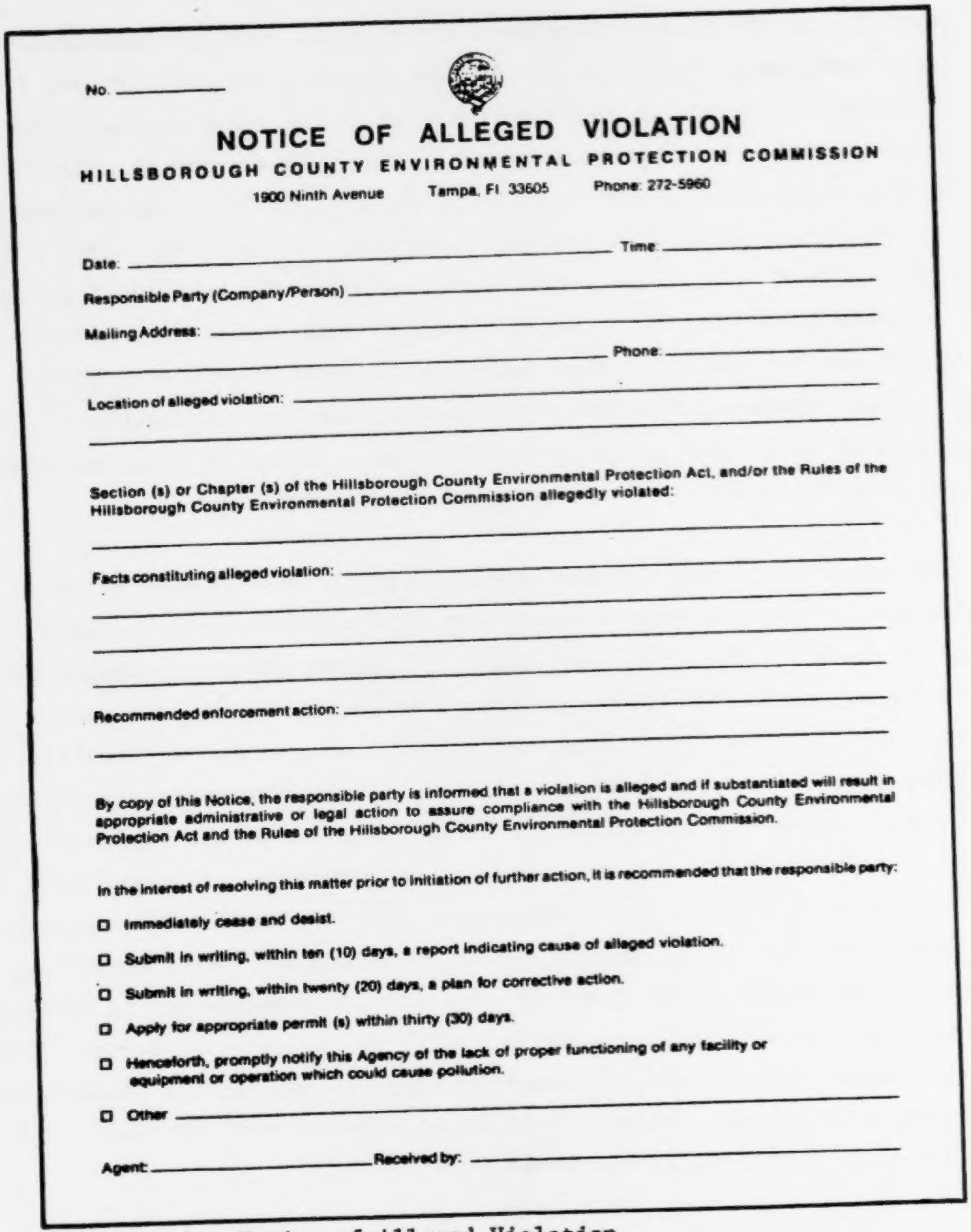
In the case of a willful violator, a violation form (Figure 4) is filled out and requires the violator to: "cease and desist", to submit within 10 days the cause of the alleged violation, and to submit (within 20 days) a plan for corrective action. Notice that on the form there is a block for request of permits. For noise sources there are no permits and no waivers for temporary noises. However, when a loud noise is produced because an emergency occurs such as when a steam valve accidentally pops off, the responsible individual or company is required by county law to inform EPC.

If noncompliance continues, a typewritten letter addressed to the individual or corporation is signed by the Director of EPC and reviewed by the assistant county attorney.

This letter is a "Citation" as set forth by Section 15 of the Hillsborough County Environmental Protection Act. Since this Citation specifies action to be taken within a specified time by the offender, it is sent by Registered Mail or hand carried. The offender either corrects the violation or appeals the Citation as provided for in Section 9 of the Hillsborough County Environmental Protection Act. The appeal is forwarded to the Hearing Officer, who is quasi-judicial.

The Hearing Officer makes his findings and recommendations which are forwarded to the Commission. The offender and the EPC staff have 10 days to file an exception to the findings and recommendations of the Hearing Officer.

After the Commission makes the final decision, the offender or the staff may appeal through court action as deemed necessary.



No. ____________

NOTICE OF ALLEGED VIOLATION

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION

1900 Ninth Avenue Tampa, Fl 33605 Phone: 272-5960

Date: ____________ Time: ____________

Responsible Party (Company/Person) ____________

Mailing Address: ____________

____________ Phone: ____________

Location of alleged violation: ____________

____

Section (s) or Chapter (s) of the Hillsborough County Environmental Protection Act, and/or the Rules of the Hillsborough County Environmental Protection Commission allegedly violated:

____

Facts constituting alleged violation: ____________

____

____

____

Recommended enforcement action: ____________

____

By copy of this Notice, the responsible party is informed that a violation is alleged and if substantiated will result in appropriate administrative or legal action to assure compliance with the Hillsborough County Environmental Protection Act and the Rules of the Hillsborough County Environmental Protection Commission.

In the interest of resolving this matter prior to initiation of further action, it is recommended that the responsible party:

☐ Immediately cease and desist.

☐ Submit in writing, within ten (10) days, a report indicating cause of alleged violation.

☐ Submit in writing, within twenty (20) days, a plan for corrective action.

☐ Apply for appropriate permit (s) within thirty (30) days.

☐ Henceforth, promptly notify this Agency of the lack of proper functioning of any facility or equipment or operation which could cause pollution.

☐ Other ____________

Agent: ____________ Received by: ____________

Figure 4. Notice of Alleged Violation.

Even though effective enforcement of the noise rule has been through voluntary compliance 99 percent of the time, the complaints chief has found it unnecessary to resort to legal action most of the time because he believes most people who are cognizant of the law want to obey it. In the majority of situations, Jones relies only on his ability to communicate effectively and on being firm and understanding. He tells the noise violator how he or she is in violation, and then helps the individual arrive at a workable solution. He often will send a letter explaining a violation and how it can be resolved. When the noise violator understands the nature of the violation and what the penalties are for noncompliance, the complaint is usually resolved within a short period of time, and sometimes with added benefits to others not directly affected.

The complaints chief related several examples of different zoning situations where he has experienced the type of assistance he commonly receives in abating noise. One such example involved the store manager of a chain store operation in the county when a refrigeration unit was moved close to his store's back property line. As a result of a number of complaints the manager received from residents, he went to the EPC complaints office where Jones recommended he install acoustical louvers on the equipment. Subsequently, the EPC was asked to take sound measurements before and after a new store is built. In another commercial situation involving a national fast food chain store, the manager of the establishment, after consulting with corporate headquarters, complied with EPC's recommendation to install a concrete block sound barrier at the back edge of the store property. Residents no longer complain about noise from blowing horns or the loudspeakers at the drive-in window. Jones summed up EPC's enforcement approach as one in which they "speak softly but wield a big stick."

At times that stick must be wielded more obtrusively than at others in order to evoke immediate compliance. In such a situation the noise problem is solved by reminding the violator what the cost could be for willfully violating a county pollution law. This is an example:

Because of a very high water table in most of Florida, well-point pumps must be used to dry out areas for digging of utilities, such as sewer and water lines. The pumps are used on a continuous basis often for periods up to 24 hours or more and inevitably cause complaints if the pumps are not shielded in residential areas. But action sometimes precedes complaints. One man was so annoyed he took an ax to the pump in the early morning hours and caused $600 worth of damage. On the day prior to the incident, the complaints chief had supervised the partial construction of a sandy barrier around the pump. Believing the job would be completed, he left the site. The next morning, the irate construction foreman threatened to file suit against the man who had caused the damage. Insinuating the penalty for noncompliance with a pollution law was imminent, the foreman was asked if he would rather pay $5,000 a day for the noise pollution the pump was causing since the barrier had not been completed the night before or absorb the $600 in damages. If the construction company did file a suit against the irate resident, the county could file a countersuit for willful noncompliance of a county law. The foreman responded by completing the barrier around the pump, and by forgetting the intended suit.

Although sometimes criticized by other EPC staff for the degree of his personal involvement in solving a noise problem, Jones believes people respond to personal interest, especially when a noise complaint is used as an excuse to start an argument. There are a number of these kinds of complaints. Therefore, the complaints chief spends much time mending fences in order to resolve such noise problems through voluntary compliance. The reason he has been successful at it is because he is able to deal with people in a firm but understanding manner. To illustrate how he applies that philosophy, he related a case about two men who were neighbors in a nice neighborhood. In response to one neighbor's noisy air conditioner, the other drove his motorcycle around his own house in retaliation. The feud continued and greatly annoyed other neighbors. Finding no other means of dealing with the situation, Jones sat them down together over a cup of coffee and got them to resolve their differences.

The complaints chief was characterized by others in the community as being low key in his approach to enforcement of the county noise rule. One commenter said that if anything environmental is to be accomplished in the Tampa area, it had better be done low key or else industry will oppose it. This is the premise by which the complaints section operates: "If the noise doesn't bother anybody why do anything about it. Let somebody have some fun making all the racket they want providing it doesn't bother their neighbor. Within the confines of a building, for example, I don't care how much noise they make as long as they don't open doors and windows. When they irritate the people across the street," Jones said, "that's when I come in."

Cooperation With Other Agencies

The majority of complaints actions are initiated through telephone calls from complainants. But some complaints are received from municipal police, or require enforcement by means other than through police handling of disturbing-the-peace situations. Some complaints are generated through the county or municipal planning and zoning departments on a sporadic basis, but routinely sent to the EPC staff for comments on all phases of the environment.

On occasion EPC staff have worked with the director of the county parks department in solving recurrent noise problems from rock-bands or motorized model boats and plants. The complaints chief does not, as a rule, attempt to develop preventive noise programs. He said there simply hasn't been time nor the need.

IV. CATEGORIES OF SPECIFIC COMPLAINTS

Complaints investigated by EPC fall into three major categories: industrial, commercial, and residential. The majority of those complaints are the result of noise generated by sources on the other side of the complainant's residential property line.

Although each of the major categories were subdivided (see Appendix C-2) the complaints were regrouped as displayed in Table 4.

TABLE 4

COMPLAINTS BY CATEGORY, 6/76-8/78

Category	Percent Complaints
Residential	30
Industrial	23
Commercial	19
Motor Vehicles	14
Agriculture	5.2
Aircraft	1.9

*Note: Data on which this table is based are in Appendix C-2.

The greatest number of the 155 complaints that fell into any one major category were those in the residential category (30%) followed by industrial (23%), commercial (19%), and motor vehicles (14%). If these few complaints can be viewed as an indication of which noise sources have annoyed the most people during the 2 years since the numerical noise rule was promulgated, then it might be assumed that vehicular traffic (14%) and aircraft overflights (1.9%) do not generate the most noise problems in Hillsborough County as previously believed by EPC staff and others.

But a great deal of caution must be exercised when interpreting these data. Many people in the county may believe that no complaint they could make against vehicle traffic noise or aircraft noise would result in effective abatement. This is because problems generated by aircraft noise have been highly publicized (see Appendix E) along with only limited solutions in which some flight patterns have been changed. And who can be held accountable for the aggregated roar and din of traffic noise even if all vehicles were equipped with good exhaust systems? So, it is possible many potential complainants do not file a complaint they believe won't be resolved regardless of what effort they think might be expended to abate the noise. As a result, complaint statistics for Hillsborough County may not reflect the real problems but rather may be biased in favor of those complaint situations in which there are both a complainant and an identifiable, alleged noise violator.

In the remaining part of this section, complaint cases by specific types of noise sources will be discussed to illustrate how enforcement efforts are helping to achieve noise control in Hillsborough County.

Industrial Noise

In 1971, prior to promulgation of a numerical noise rule, the complaints chief blamed Tampa city officials for bad zoning in allowing a concrete batch plant to be rebuilt by a concrete company in an M-1 (light manufacturing) zoned area located between two already established R-1 (single family) zoned residential areas. Although the concrete company's revitalized plant complied with air pollution rules, noise emitted from the plant was excessive. Jones told the Tampa Board of Adjustment about the noise measurements taken at residential property lines adjoining the plant. His findings substantiated complaints of residents who had petitioned to have the plant closed down. Because the plant refused to voluntarily comply with the city's new decision, the Tampa Board of Adjustment ordered the plant shut down (see Appendix H) and revoked the plant's operating permit. Action taken in this situation was at the city's request but with assistance from the county noise control staff.

This case illustrates that nuisance noise can be abated -- but also in this particular case the industrial plant could not sufficiently curtail its operations to comply with any noise rule. Any noise from the plant was too much. Because noise as a nuisance is a subjective judgement in many cases, enforcement of a nuisance rule could sometimes be overly restrictive, Jones pointed out. In other cases a numerical rule limits the emission of excessive noise and allows some noise to be emitted from the noise source. This is a major reason why Hillsborough County developed a numerical rule even though the Hillsborough County Environmental Protection Act provided for enforcement of a noise nuisance law.

Vehicle Noise

State noise laws have provisions for enforcing only vehicle noise limits through the State highway patrol. And although State law restricts the sale of muffler modifications and the sound level of new cars, it is up to the State police to enforce this rule. But the police are complaining there isn't sufficient manpower to continue the present system of requiring one officer to attend the roadside noise monitoring equipment while another officer engages in pursuit. According to State law, the arresting officer must actually see the meter reading before writing a citation for the noise violation.

Off-road Vehicle Noise

Off-road use of motor vehicles falls under Hillsborough County's enforcement jurisdiction since any noise from the vehicles (usually motorbikes) must conform to property line standards. When asked how he catches such noise violators, the complaints chief replied that he uses a direct approach.

In responding to a complaint made by a resident living near the Tampa International Airport, the complaints chief learned the disturbance was being made by a particularly noisy motorbike. Having spotted the vehicle driven by a teenager, he followed him to his home. The complaints chief was told the bike belonged to the boy's father. Returning when the owner got home that evening, Jones asked him about altering the muffler. Because the man was unconvinced it was a violation of the Hillsborough noise rule to alter mufflers on motorbikes, Jones provided him with a copy of the rule. After reading it, the man said the muffler would be replaced before the cycle went out on the street again. No further complaints were received.

Although enforcement of laws restricting vehicle noise from vehicles used on the road is the responsibility of State law enforcement officers, most youthful motorcyclists riding noisy bikes close to or on shoulders of State roads are seldom apprehended. Parents repeatedly complain that police officers should let their kids alone and go after the real criminals. Out of frustration, the officers let the kids to their own devices. However, since the State noise law was passed, noisy motorcycles have all but disappeared from streets in the county.

Heavy Vehicle Noise

On occasion, EPC staff have responded to complaints from residents about noise from heavy trucks driving to and from Port Tampa on Tampa city streets. In such cases sound level measurements have been taken and the results included in a report forwarded to the traffic management division of the City of Tampa. Subsequently, trucks using the more readily accessible route through the residential area were required by a restriction to use other routes. However, trucks making deliveries to local gas stations or small retail stores are exempted from the restriction. Traffic Management has maps available for distribution to truckers advising them of streets in the city where they are not to drive. On State roads, vehicle weight restrictions are often posted by the State particularly when such roads pass through or close to residences. In one such case, the Hillsborough

County Commissioners had petitioned the State roads department to post weight restrictions on a State road on which trucks traveled to and from port facilities.

Racetrack Noise

An issue that has stirred some political winds in Hillsborough County in the past evolved out of EPC's attempts to find solutions to racetrack noise. Of the two raceways currently running in the county, EPC cited East Bay Raceway, a dirt track raceway near Gibsonton, Florida, south of Tampa on Route 41-South, in response to continued complaints. EPC issued a citation on recommendations from a noise consultant from Clearwater, Florida, EPC had hired to study the noise problem at the raceway. To expedite solving noise problems associated with both raceways, EPC had been given tentative approval by the Hillsborough County Commissioners to take both East Bay and Golden Gate raceways to court simultaneously. Before that action could be precipitated, however, EPC was told to take Golden Gate not East Bay to court. Recently, residents across from Golden Gate have filed complaints with the EPC resulting in litigation proceedings against that raceway. But because neither race track could comply with a 55 dBA noise limit across residential property lines, the June 10, 1975 noise rule was amended on April 13, 1978 as previously mentioned. To get a fuller understanding of the arguments used in influencing that amendment, see Appendix F-2 for the hearing transcript.

Recreation Noise

During a State meet of model boat enthusiasts at a lake in Hillsborough County, the complaints chief approached a sponsor of the meet and asked if the model boats could be quieted. At a subsequent meet, all model boats were fitted with mufflers. But, even with mufflers the noise level at the edge of the lake was 85 to 90 dBA; that level is permissible in such a situation as long as it does not exceed 60 dBA at residential property lines during the day.

A local model airplane club, Brandon Flying Club, has established strict flying rules which include not flying before 9 a.m. and not after sundown. According to a club member, if other model plane enthusiasts use the club flying area they are asked to leave or join the club and conform with the rules. The club uses one or the other of two flying sites. One is on a portion of abandoned WW II air base runway that has since been incorporated into the grounds of an industrial park now belonging to Joseph Schlitz Brewing Company. Schlitz donated the field to the club in a gesture of goodwill. The other site, also away from populated areas, was leased to the club for a nominal fee by the property owner. The club built a model airport on the site, and requires all members to equip the planes with mufflers. The nearest residence to the model airport is a single family dwelling across the road from the club runways -- a distance of about 100 yards. Since members must fly their radio-operated models in restricted air space over the airport, no complaints have been received about model airplane noise in this area. Club members closely enforce club rules to prevent complaints of noise.

Aircraft Noise

Ballast Point Elementary School just north of MacDill AFB had problems with noise from jets taking off from the base. During a period of controversy in the school concerning teacher effectiveness, Jones wrote this to the school's principal: "I have been reading with interest how teachers are graded by what the student learns. I have sympathy for the teachers who try their best and for the students who strive to learn in an environment where all talking must stop because no one can hear." Because of his recommendations based on measurements in and around the school, the school was air conditioned immediately. In the summer of 1978 a bond issue was passed to air condition all the schools in the county because of noise problems.

A group formed to complain about noise from F-4 Phantoms out of MacDill, the Interbay Citizens Against Noise, met with EPC staff to discuss ways the Air Force could solve the noise problem. As a result of their unemotional attitudes and intelligent approach, the group convinced the Air Force to conduct a study at the cost of tens of thousands of dollars of the feasibility of building another runway that would redirect the flight patterns of approaching or departing aircraft away from the homes of most of the area's residents. In the process of conducting the study, however, it was found that if the runway were built the habitat of an endangered species of whooping crane would be disturbed. The runway also could not be built because of fiscal restraints and uncertainty about the scope of MacDill's continued mission.

Through the combined persistence of the EPC staff and affected residents, noise levels over housing areas near the base have been controlled to some extent through changes in flight patterns. By the time the F-4's reach the perimeter of the base, they have climbed to the highest altitude that is safely possible -- from both the pilot's safety and safety of aircraft accessing Tampa International Airport.

A few years ago, the Federal Housing Authority discontinued underwriting mortgages for houses close to MacDill AFB. But through the efforts of State Senator Knopke, the FHA has resumed guaranteeing mortgages on houses located in the area around MacDill AFB. Strip chart recordings were made during monitoring of the area that show local residents really are only affected by MacDill overflights during the day and only seldom at night.

V. PROGRAM OPERATION ADMINISTRATION

Established by the Hillsborough County Environmental Protection Act of 1967, the Environmental Protection Commission is governed by a board of five elected county commissioners, directed by an appointed individual, and staffed by merit service personnel. The current director of the EPC is Roger Stewart, an adamant environmentalist. Much of the controversy that has evolved out of Stewart's enforcement of air, water, and noise rules has been a result of his unwaivering devotion to duty in enforcing the laws to the letter. That attitude has often put him in direct opposition to the elected EPC commissioners.

Staff

The chief of complaints is an Environmental Specialist -- a position staffed through Hillsborough County merit service competition. Two of the three others who assist him are lower ranked Environmental Specialists. Enforcement of noise rules occupies only about 35 percent of Jones' time while occupying 15 percent for one individual and 10 percent for each of two others. Out of a possible 160 manhours per week, only 28 manhours are allocated to noise control -- less than 20 percent utilization of manpower resources. Jones' time is evenly distributed among enforcement of air, water, and noise rules while other staff working with him spend differing amounts of time enforcing the other environmental rules.

Personnel Qualifications

Minimum qualifications for the Environmental Specialist II position require a B.A. or B.S. in the physical sciences with 2 years experience in environmental control. Qualifications for an Environmental Specialist I are essentially the same, except that experience is not required. (See Appendix G-1 for greater detail on personnel qualifications.)

Training

All EPC staff working in noise control attend a 2-day course and receive certification upon passing a written exam testing knowledge of: the human response to hearing, the physical and mathematical relationships between sound energy and decibels, regulatory provisions of noise legislation, and how to properly gather noise data using appropriate sound level devices and measuring techniques. The course was designed by the Engineering Department of the University of South Florida in Tampa, and given by Dr. William Smith. (Excerpts of the course manual are in Appendix G-2.)

Budget and Equipment

An annual sum of approximately $14,000 is allocated to enforcing the Hillsborough County noise rule. This is how that budget was apportioned for FY 1979:

Salaries (including benefits)	$12,612.00
Capital Expenditures budgeted for FY 1979	125.00
Equipment Maintenance budgeted for FY 1979	1,000.00
Total Budget Items	$13,737.00

Since there are 655,000 residents in the county, the per capita cost of enforcing the noise rule is 2.1¢.

Noise measuring equipment on hand are:

1 - Metrosonics dB 602 Sound Level Analyzer with integrating capabilities for any L_n, plus computations for L_{eq} and L_{dn}. It is also able to measure and record discrete four (4) L_n for a given time span over a given time limit. The Metrosonics dB 602 is used to measure either ambient or property line noise.

1 - Gen Rad 1933 Sound Level Analyzer for the measurement of frequency band and impulsive noise. This meter has a frequency range of octave bands from 31.5Hz to 16,000 Hz plus A, B, C and Flat Scales. The 1565-B and 1933 are used for property line measurements on first response to complaint.

2 - Gen Rad 1565-B Sound Level Meter. This meter has A, B, and C scales.

1 - Columbia SPL 110 Sound Level Recorder, a continuous monitor with strip chart recorder. This measures sound on A-, B-, or C-, weighted scales. As a general rule the Columbia is used in conjunction with the dB 602 to measure 'C'-weighted noise since the dB 602 is A-weighted only.

1 - Newport Digital Printout Model 810 used with Metronsonics dB 602.

Initial cost of equipment on hand .... $ 9,400.00

The budget for noise program expenses will not significantly expand because noise activities will not be expanded. Air and water pollution rules must also be enforced.

Other Noise-Related Activities

In addition to performing noise measurements in response to a noise complaint, Jones is occasionally invited to speak on environmental topics -- air, water, or noise. Jones recalled the time he was invited to speak at Academy of Holy Names, a girls' school in Tampa. He took along some noise monitoring instruments to demonstrate how noise is measured. Part of his presentation was asking some students to leave the classroom, make their own sound level measurements, and make a report on what they found. They were very enthusiastic in their reception of the presentation, especially when they discovered how noisy places in the school building were. By allowing students to demonstrate the effects of noise to themselves, the complaints chief encouraged the notion that they, not he, were responsible for what was learned about noise.

To determine if overall noise levels in the county were close to the recommended EPA average L_{dn} of 55, a "county noise index" was developed based on a technique developed by Richard K. Miller and Associates, Inc., in their book entitled, City Noise Index. Using 21 randomly selected measurement sites, an average L_{eq} of 55 was calculated which the complaints chief said is roughly equivalent to an L_{dn} of 58 dB -- 3 dB higher than the recommended L_{dn}. The procedure is explained in Appendix I-2.

To confirm that noise was excessively loud along the major interstate highway running through Tampa, Jones took measurements with the Metrosonics dB 602 that showed an L_{10} greater than 70 dBA for a 24-hour period. He plans to take hourly L_{eq}'s along the entire length of the interstate to make up L_{eq} contours around the road to show the Florida Department of Transportation what the noise hazards are in running an interstate through town. This, he hopes, will prove to DOT that barriers will need to be built between the proposed extension to the Cross-Town Expressway and houses and businesses along the roadway.

In September 1978 Hillsborough County's EPC was selected by the US EPA to work on the ECHO (Each Community Helps Others) program. Jones is the representative. Since September, he has met with officials in Savannah, Georgia to discuss the type of noise rule they want. One of his first involvements with the developing program will be to train local government employees in how to take noise measurements.

Other incidental activities occasionally involve Jones' time. When the city of Jacksonville, Florida was attempting to pass a noise rule, copies of the Hillsborough County noise rule, the State law, and materials on how to develop a community noise program were sent to the local officials. Jacksonville has since passed a noise ordinance.

Some of the complaints chief's time is also spent in talking with reporters from local newspapers, radio and television stations. The media in the Tampa area are very interested in following environmental issues. The complaints chief said he tries to project a good image in the community in an effort to gain general support for the entire environmental program.

VI. PROGRAM ASSESSMENT AND SUMMARY

There are three major aspects of a noise control program that can be used to evaluate whether a noise ordinance or rule is resulting in significant decreases in county or city noise problems: enforcement, engineering, and education. Enforcement, defined in terms of the Hillsborough County noise rule, is the restriction of sound levels by receiving land use using complaints of noise-offended residents as the mechanism for responding to noise violations. Engineering is the application of such techniques as isolation of a noise source, retrofitting a noise source with a noise attenuation device, and requiring county/city departments of planning, zoning, and building to consider noise standards in zoning changes and new building construction. Education is the conveyance of information to affected residents about the nature of noise, why there is a noise rule, and how the noise program works.

How well the objectives of the noise rule have been fulfilled depends on how well the program functions with regard to the combined influence of these aspects. Does the noise-offended individual know when and where to register a complaint, and is abatement of that noise technologically, economically and politically feasible? Following is an assessment of the Hillsborough County noise program in terms of the combined influence of enforcement, engineering, and education aspects.

Early attempts in developing a county noise rule were overshadowed by opposition from influential industrial leaders who believed they were besieged by unwaivering enforcement of air and water pollution rules by the Hillsborough County Environmental Protection Commission staff.

Because of industry opposition to a noise rule that included numerical limits, EPC noise rule drafters sought to develop an uncomplicated rule that was acceptable to industry but still enforceable. Easy enforcement however, has not allowed more staff time for enforcement of noise rules.

The EPC staff spend nearly equal amounts of available time and resources on enforcing noise, air, and water pollution laws in Hillsborough County. EPC staff neither have the time nor see the need to routinely conduct noise monitoring to measure the level of noise abatement from year to year. Some noise source studies have been conducted or are being planned to evaluate specific noise problems. Abatement has been limited to resolving the less serious and less involved problems on a complaint basis only. Since the county noise rule was implemented in June 1976, only two cases have resulted in court proceedings. The majority of the complaints are resolved, and resolved through voluntary compliance.

Extensive coverage of local environmental issues by the county's news media is quite possibly the reason why people are willing to comply with noise abatement resolutions as they have been. Manufacturers and retailers now realize noncompliance could result in unfavorable press coverage by environmentally concerned reporters, as well as in lengthy and well publicized legal entanglements such as those experienced by several of the county's industrial and commercial proprietors. But this is not the educational process that yields the more positive results. Students and others who have the opportunity to learn for themselves how prevalent and hazardous environmental noise has become are even more likely to encourage noise abatement through voluntary compliance than those merely trying to avoid fighting with "City Hall."

Many of the noise complaint cases were resolved by implementing simple engineering controls, such as concrete barriers and enclosures. These and other types of engineering control devices may effectively reduce noise levels, but are, like some of the earlier automobile air pollution devices, not a part of the original design. Consequently, they may be only temporary noise solutions and are vulnerable to alteration. There is not enough emphasis in Hillsborough County on prevention of noise problems before they occur. But then, EPC staff believes that noise abatement should be on a one-to-one basis especially when faced with restricted use of available manpower and an austere annual operating budget. In spite of that, Jones is hopeful of developing a liaison with Planning and Zoning to facilitate routine review of zoning change applications. This kind of cooperation in a growing county is particularly important in preventing zoning problems such as those that plagued a local cement company (Appendix H).

Although the Hillsborough County noise program doesn't function at any where near full enforcement capability, support for the program is growing through public awareness. The very positive results produced with the effort that has been expended so far indicate that if it were expanded, many more people would benefit than already have.

APPENDICES

Some of these appendices have been referenced in the text. All appendices are intended to provide greater insight into how the rule was developed and promulgated, what some of the problems have been with regard to specific land uses such as airports and raceways, as well as to provide information concerning complaint procedures and personnel selection and training.

APPENDIX A - NOISE LEGISLATION

A-1 Noise Rules

A-2 Hillsborough County Environmental Protection Act (As Amended in 1972)

RULES
# of the
HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION COMMISSION
CHAPTER 1-10
NOISE

1-10.01 TERMINOLOGY

All terminology used in this Chapter not defined below shall be defined according to applicable publications of the American National Standards Institute (ANSI) or its successor body.

A. A-WEIGHTED SOUND LEVEL

The sound pressure level in decibels as measured on a sound level meter using the A-weighting network. The level so read is designated dBA.

B. COMMERCIAL AREA

All property which is used primarily for the sale of merchandise or goods, or for the performances of a service, or for office or clerical work.

C. DECIBEL (dB)

A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micronewtons per square meter.

D. EMERGENCY

Any occurrence or set of circumstances involving actual or imminent physical trauma or property damage which demands immediate action.

E. EMERGENCY WORK

Any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

F. INDUSTRIAL AREA

Any property which is used primarily for manufacturing, processing or an airport.

G. NOISE

Any sound which annoys or disturbs humans or causes or tends to cause an adverse psychological effect on humans.

H. NOISE DISTURBANCE

Sound which (a) is or may be harmful or injurious to the health or welfare of a reasonable person with normal sensitivities, or (b) unreasonably interferes with the enjoyment of life, property or outdoor recreation, or (c) causes noise pollution as defined in Chapter 67-1504, Laws of Florida, as amended.

I. PUBLIC RIGHT OF WAY

Any street, avenue, boulevard, highway, sidewalk or alley or similar place normally accessible to the public which is owned or controlled by a governmental entity.

J. PUBLIC SPACE

Any real property or structures thereon normally accessible to the public which is owned or controlled by a governmental entity.

K. PURE TONE

Any sound which can be distinctly heard as a single pitch or a set of single pitches. For the purposes of measurement, a pure tone shall exist if the one-third octave band sound pressure level in the band with the tone exceeds arithmetic value the sound pressure levels of the two contiguous one-third octave bands by 5dB for center frequencies of 500 Hz and above and by 8dB for center frequencies between 160 and 400 Hz and by 15 dB for center frequencies less than or equal to 125 Hz.

L. REAL PROPERTY LINE

An imaginary line along the ground surface, and its vertical plane extension, which separates the real property owned, rented or leased by one person from that owned, rented or leased by another person, excluding intrabuilding real property divisions.

M. RESIDENTIAL AREA

All property on which people live and sleep or parkland or hospitals or schools or nursing homes or that which is not commercial or industrial or the individual plots within a mobile home park assigned by the owner of the park.

N. SHORT DURATIONS

Any sound with a duration of less than one minute.

O. SOUND

An oscillation in pressure, stress, particle displacement, particle velocity or other physical parameter, in a medium with internal forces. The description of sound may include any characteristic of such sound, including duration, intensity and frequency.

P. SOUND ANALYZER

A device for measuring the octave band level of a sound as a function of frequency.

Q. SOUND LEVEL

The weighted sound pressure level obtained by the use of a metering characteristic and weighting A, B, or C as specified in American National Standards Institute specifications for sound level meters ANSI S1.4-1971, or in successor publications. If the weighting employed is not indicated, the A-weighting shall apply.

R. SOUND LEVEL METER

An instrument which includes a microphone, amplifier, RMS detector, integrator or time averager, output meter, and weighting networks used to measure sound pressure levels. The output meter reads sound pressure level when properly calibrated, and the instrument is of Type 2 or better, as specified in the American National Standards Institute Publication S1.4-1972 or its successor publication.

S. SOUND PRESSURE

The instantaneous difference between the actual pressure and the average or barometric pressure at a given point in space, as produced by the presence of energy.

T. SOUND PRESSURE LEVEL

20 times the logarithm to the base 10 of the ratio of the rms sound pressure to the reference pressure of 20 micronewtons per square meter ($20\ x10^{-6}N/m^2$). The sound pressure level is expressed in decibels.

1-10.02 EXCEPTIONS

It is not the intent of this chapter to regulate noises in circumstances where persons, property, wildlife or plantlife are not affected by the noise.

The following activities or sources are exempt from the requirements of this chapter:

A. Emergencies

The emission of sound for the purpose of alerting persons to the existence of an emergency, or in the performance of emergency work.

B. The unamplified human voice.

C. Reasonable operation of equipment or conduct of activities normal to residential or agricultural communities such as lawn care, soil cultivation, maintenance of trees, hedges and gardens, refuse collection, the use of lawn mowers, saws and tractors, street sweepers, mosquito fogging, tree trimming and limb chipping, and other normal community operations.

D. Cultural, ceremonial or traditional activities or events such as Gasparilla Day, parades, and Fourth of July demonstrations.

E. The lowing of cattle, the clucking of fowl, the neighing of horses, the baying of hounds and other normal sounds of reasonably cared for domestic animals.

1-10.03 PROHIBITED ACTS

A. NOISE DISTURBANCE PROHIBITED

No person shall make, continue, or cause to be made or continued any noise disturbance.

1-10.04 SOUND LEVELS BY RECEIVING LAND USE

A. MAXIMUM PERMISSIBLE SOUND LEVELS BY RECEIVING LAND USE.

No person shall operate or cause to be operated any source of sound in such a manner as to create a sound level which exceeds the limits set forth for the receiving land use category in Table 1, when measured at or within the property line of the receiving land use.

Table 1.

SOUND LEVELS BY RECEIVING LAND USE

Receiving Land Use Category	Time	Sound Level Limit, dBA
Residential, Public Space, Agricultural or Institutional	7 A.M. — 10 P.M.	60
	10 P.M. — 7 A.M.	55
Commercial or Business	7 A.M. — 10 P.M.	65
	10 P.M. — 7 A.M.	60
Manufacturing or Industrial	At All Times	75

B. CORRECTION FOR CHARACTER OF SOUND

For any source of sound which emits a pure tone, the maximum sound level limits set forth in Table I shall be reduced by 5 dBA. For any source of sound which is of short duration and is non-repetitive, the maximum sound level limits set forth in Table I shall be increased by 10 dBA from 7 A.M. to 10 P.M.

C. AIR CONDITIONING OR AIR-HANDLING EQUIPMENT

No person shall operate or cause to be operated any air conditioning or air-handling equipment in such a manner as to exceed any of the following sound levels across a residential real property line:

TABLE II

Measurement Location	dB(A)
Any point on neighboring property line	60
Center of neighboring patio	55
Outside the neighboring living area window nearest the equipment location	55

1-10.05 MOTOR VEHICLE

A. MOTOR VEHICLES OPERATING ON PUBLIC RIGHT OF WAY

Motor vehicles on a public right of way are regulated as set forth in the Florida Motor Vehicle Noise Prevention and Control Act of 1974, Chapter 74-110, Laws of Florida.

B. RECREATIONAL MOTORIZED VEHICLES OPERATING OFF PUBLIC RIGHTS OF WAY

No person shall operate or cause to be operated any recreational motorized vehicle off a public right of way in such a manner that the sound level emitted therefrom violates the provisions of Chapter 1-10.04(A). This section shall apply to all recreational motorized vehicles, whether or not duly licensed and registered, including, but not limited to motorcycles, go-carts, amphibious craft, campers and dune buggies. All such vehicles shall use noise attenuating devices (exhaust mufflers).

C. MOTOR VEHICLES OPERATED AT FACILITIES FOR COMPETITIVE EVENTS

1. All motor vehicles operated at facilities for competitive events are exempted from complying with Chapter 1-10.04(B).
2. Noise level shall not exceed 78 dBA when measured at or within the property line of residential properties.
3. Facilities for competitive events which might reasonably be expected to be a source of noise which exceeds the limits specified in Chapter 1-10.04(A) shall not operate between the hours of 11:30 P.M. and 12:00 noon.
4. Vehicles shall use noise attenuating devices (exhaust mufflers).

D. APPROVAL REQUIRED

No person shall construct, alter, expand or operate any installation or facility for competitive events, the use or operation of which might reasonably be expected to be a source of noise which exceeds the limits specified in Chapter 1-10.04(A), without first providing documentation and assurance of compliance with Chapter 1-10.05(C), and without first receiving written approval from the Environmental Director as provided for under Sections 10 and 11 of the Hillsborough County Environmental Protection Act.

The documentation and assurance above shall include but not be limited to, use of sound barriers, use of muffler devices, control of direction and volume of loud speakers and provisions for monitoring.

Adopted June 10, 1976
Revised April 13, 1978

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION ACT
CHAPTER 67-1504
(As Amended)*

Section 1 Short title
Section 2 Declaration of legislative intent
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*AMENDED BY CHAPTERS 69-1149; 71-681; 72-563; 73-496; LAWS OF FLORIDA

CHAPTER 67-1504
AS AMENDED

Be It Enacted by the Legislature of the State of Florida:

Section 1. Short title.—This act may be known and cited as the "Hillsborough County Environmental Protection Act."

Section 2. Declaration of Legislative Intent.—The legislature finds and declares that the reasonable control and regulation of activities which are causing or may reasonably be expected to cause pollution or contamination of air, water, soil, and property, or cause excessive and unnecessary noise may be necessary for the protection and preservation of the public health, safety, and welfare. It is the intent and purpose of this act to designate the board of county commissioners as the environmental protection commission of Hillsborough county to provide and maintain for the citizens and visitors of said county standards which will insure the purity of all waters consistent with public health and public enjoyment thereof, the propagation and protection of wildlife, birds, game, fish and other aquatic life and atmospheric purity and freedom of the air from contaminants or synergistic agents injurious to human, plant, or animal life and excessive and unnecessary noise, which unreasonably interfere with comfortable enjoyment of life or property or the conduct of business.

Section 3. Definitions—As used in this act and said rules and regulations, the following words and phrases shall have the following meanings unless some other meaning is plainly indicated:

(1) "County" shall mean Hillsborough county, Florida.

(2) "Air contaminants" shall mean a particulate matter as defined herein, gas, or odor, including but not limited to, smoke, charred paper, dust, soot, grime, carbon or any other particulate matter, or irritating or malodorous noxious acids, fumes or gases, or any combination thereof, but shall not include uncombined water vapor.

(3) "Air pollution" shall be construed to mean the presence in the outdoor atmosphere of one or more air contaminants or combination thereof in such quantities and of such duration as to be injurious to human, plant or animal life, or property, or which unreasonably interfere with the comfortable enjoyment of life or property, or the conduct of business.

(4) "Combustion contaminants" shall mean particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state.

(5) "Combustible refuse" shall mean any combustible waste material containing carbon in a free or combined state.

(6) "Condensed fumes" shall mean minute solid particles generated by the condensation of vapors from solid matter volatilization from the molten state, or which may be generated by chemical processes, operations, or reactions, when such processes create airborne particles.

(7) "Dusts" shall mean minute solid particles released into the air by natural forces or by mechanical processes including, but not limited to, crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping.

(8) "Emission" shall mean the act of passing into the atmosphere an air contaminant or gas stream which contains or may contain an air contaminant; or the material so passed to the atmosphere.

(9) "Flue" shall mean any duct or passage for air, gases, or airborne materials, such as a stack or chimney.

(10) "Gas" shall mean a formless fluid which occupies space and which can be changed to a liquid or solid state only by increasing pressure with decreased or controlled temperature, or by decreased temperature with increased or controlled pressure.

(11) "Mist" shall mean a suspension of any finely divided liquid in any gas.

(12) "Nuisance" shall mean and include the use of any property, facilities, equipment, processes, products or compounds, or the commission of any acts, that cause or materially contribute to:

(a) The emission into the outdoor air of dust, fumes, gas, mist, odor, smoke, or vapor, or noise or any combination thereof, of such character and in such quantity or level as to be detectable by a considerable number of persons or the public, so as to interfere with such person or the public health, repose or safety, or to cause severe annoyance or discomfort, or which emission tends to lessen normal food and water intake, or produces irritation of the upper respiratory tract, or produces symptoms of nausea, or is offensive or objectionable to, or causes injury or damage to real property, personal property or human, animal or plant life of any kind, or which interferes with normal conduct of business, or is detrimental or harmful to the health, comfort, living conditions, welfare and safety of the inhabitants of the county.

(b) The discharge into any of the waters of the county of any organic or inorganic matter or deleterious substance or chemical compounds, or thermal energy or any effluent containing the foregoing, in such quantities, proportions or accumulations as to be detectable at any point beyond the property limits of the premises occupied or used by the person responsible for the source thereof, so as to interfere with the health, repose or safety of any considerable number of persons or the public, or to cause severe annoyance or discomfort, or which tends to lessen normal food and water intake, or produces symptoms of nausea, or is offensive or objectionable or causes injury or damage to real property, personal property, human, plant or animal life of any kind or which interferes with normal conduct of business, or is detrimental or harmful to the health, comfort, living conditions, welfare and safety of the inhabitants of the county.

(c) Any violation of the provisions of the act which becomes detrimental to health or threatens danger to the safety of persons or property, or gives offense to, is injurious to, or endangers the public health and welfare, or prevents the reasonable and comfortable use and enjoyment of property by any considerable number of the public.

(13) "Odor" shall mean that property of a substance which materially offends the sense of smell.

(14) "Particulate matter" shall mean any material which at standard conditions is emitted into the atmosphere in a finely divided form as liquid or solid or both, but shall not include uncombined water vapor.

(15) "Standard conditions" shall mean, at ground level, a pressure of 14.7 pounds per square inch absolute and a temperature of seventy (70) degrees Fahrenheit.

(16) "Person" shall be construed to include any natural person, individual, public or private corporation, firm, association, joint venture, partnership, municipality, governmental agency, political subdivision, public officer, or any other entity whatsoever, or any combination of such, jointly or severally.

(17) "Smoke" shall mean the solid particles produced by incomplete combustion of organic substances including, but not limited to, particles, fly ash, cinders, tarry matter, soot and carbon.

(18) "Standard methods" shall mean the manual entitled "Standard Methods for the Examination of Water and Waste Matter," according to the most recent edition, as published jointly by The American Public Health Association, American Water Works Association, and Water Pollution Control Federation.

(19) "Vapor" shall mean any mixed material in a gaseous state which is formed from a substance, usually a liquid, by increased temperature.

(20) "Waste discharge" shall mean any outfall, ditch, pipe, soakage pit, drainage well, drainfield, or any other method or device by which treated or untreated sewage, industrial wastes, or other wastes can enter the surface waters, tidal salt waters, or ground waters, so as to cause water pollution as herein defined.

(21) "Water pollution" shall mean any contamination, destruction, or other alteration, or any activity which contributes to such contamination, destruction or other alteration, of any physical, chemical or biological feature or property of any waters of the county, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any waters of the county as will create or may reasonably be expected to create a nuisance or render such waters harmful, detrimental, or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild anmials, birds, fish or other aquatic life.

(22) "Compliance tests" shall mean tests made to determine compliance with the provisions of this act and the rules and regulations promulgated hereunder.

(23) "Open burning" shall mean any fire wherein the products of combustion are emitted into the open air, and are not directed thereto through a stack or chimney.

(24) "Rules and regulations" shall mean rules and regulations adopted pursuant to this act.

(25) "Board" shall mean the board of county commissioners of Hillsborough county.

(26) "Commission" shall mean the environmental protection commission of Hillsborough county.

(27) "Hearing officer" shall mean that person appointed by the Commission in the manner prescribed herein.

(28) "Noise pollution" shall mean the presence of noise in excessive or unnecessary amount or of such duration, wave frequency or intensity as to be injurious to human or animal life or property; or which unreasonably interferes with the comfortable enjoyment of life or property, or other conduct of business.

Section 4. Creation of the Hillsborough county environmental protection commission.—The environmental protection commission is hereby created and established. The commission shall consist of the duly elected members of the Hillsborough county board of county commissioners.

Section 5. Environmental protection commission; duties and powers.—The commission shall have the following duties, functions, powers and responsibilities:

(1) To implement and enforce the provisions of this act.

(2) To adopt, revise and amend from time to time appropriate rules and regulations reasonably necessary for the implementation and effective enforcement, administration and interpretation of the provisions of this act and to provide for the effective and continuing control and regulation of air, water and noise pollution in the county within the framework of this act, and to provide for appropriate fees to be charged by the commission for the services rendered under the provisions of this act. No such rules or regulations shall be adopted or become effective, including amendments, until after a public hearing has been held by the commission pursuant to notice published in a newspaper of general circulation in the county at least ten (10) days prior to the hearing, and then until the rules and regulations have been filed pursuant to law.

(3) To make continuing studies and periodic reports and recommendations for the improvement of air, water and noise in the county, and to work in cooperation with the Florida department of pollution control and other appropriate agencies and groups interested in the field of air, water and noise pollution.

(4) To investigate air pollution, water pollution and noise pollution control programs and activities in operation in other areas and to make recommendations for the improvement of the regulation, administration and enforcement of pollution controls in the county; to publicize the importance of adequate pollution controls, to hold public hearings, discussions, forums and institutes, and arrange programs for the presentation of information by experts in the field of air, water and noise pollution, and to visit and study pollution control programs conducted in other areas, subject to budget limitations.

(5) To issue subpoenas to compel the attendance of witnesses at any hearing who may have information relevant to any issue before the commission.

(6) To designate a hearing officer, who shall be a member of the Florida Bar, to hear appeals from actions or decisions of the environmental director, and any matters relating to this chapter which the commission may refer.

Section 6. Hearing officer; duties and powers.—

(1) A hearing officer shall be appointed by the commission. The hearing officer shall hear and determine all disputes concerning actions or decisions of the environmental director relating to compliance with this act and rules and regulations promulgated pursuant to this act. The hearing officer also shall hear and determine any matters relating to this act which the commission may delegate to said officer. All hearings shall be public. The hearing officer shall have the power to issue notices of hearings, subpoenas requiring the attendance of witnesses and the production of evidence, to administer oaths and take testimony as may be necessary. A written decision containing findings of fact, conclusions of law and recommendations shall be promptly rendered to the commission in each case; provided, however, all hearings for the adoption of rules shall be before the commission.

(2) The hearing officer shall give probative effect to evidence which would be admissible in civil proceedings in the courts of this state, but in receiving evidence due regard shall be given to the technical and highly complicated subject matter which the commission and director must handle and the exclusionary rules of evidence shall not be used to prevent the receipt of evidence having substanial probative effect. Otherwise effect shall be given to the rules of evidence recognized by the law in this state.

(3) The hearing officer shall be compensated for his services from the general revenue fund of Hillsborough county and such compensation shall be set by the commission.

Section 7. Environmental director.—The Hillsborough county environmental protection commission shall appoint an environmental director. Said environmental director shall have at least a bachelor's degree from an accredited university and possess such experience in such a field which will, in the judgment of the commission, qualify him to discharge the duties imposed by this act. The environmental director shall be subject to the supervision of the commission and shall serve at the pleasure of the commission. Compensation for such director shall be determined by the commission and paid from the general funds of Hillsborough county.

Section 8. Environmental director; duties and powers.—The duties, functions, powers and responsibilities of the environmental director, or his agents, shall include the following:

(1) Serve as technical secretary to the commission, to handle correspondence, investigations and prepare reports and data between meetings.

(2) The enforcement of the provisions of this act and the rules and regulations.

(3) Investigation of complaints, study and observation of air, water and noise pollution conditions, and recommendations as to institution of actions necessary to abate nuisances caused by air, water and noise pollution, as to prosecution of proceedings for violations of this act.

(4) Making of inspections of property, facilities, equipment and processes to determine whether the provisions of this act are being complied with.

(5) To intervene for the purpose of providing environmental impact statements, recommendations and advice in matters having or likely to have an effect upon the environment of Hillsborough county.

(6) Establishing, operating and maintaining a continuous program for monitoring air, water and noise pollution by means of county-wide air and water quality surveillance networks designed to provide accurate data and information as to whether the requirements of this act are being complied with and whether the level of air, water and noise pollution is increasing or decreasing throughout the county.

(7) Publication and dissemination of information to the public concerning air, water and noise pollution.

(8) Cooperation with appropriate public agencies.

(9) To enter upon any public or private premise or carrier during regular business hours in the performance of his duties relating to pollution control to inspect and copy records pertaining to same.

(10) To sample, test, inspect, and make analyses with respect to pollution control within the provisions of this law and rules adopted hereunder, at any time and place and to such an extent as he may deem necessary to determine whether possible sources of pollution are in compliance with the provisions of this law.

(11) To perform all other duties necessary to effect the purpose of this act, including the implementation of those duties of the commission set forth in section 5 (3), (4) and (5) and section 19 and 19A of this act.

Section 9. Appeals from actions or decisions of environmental director.—Any person aggrieved by an action or decision of the environmental director may appeal to the commission by filing within twenty (20) days after the date of the action or decision complained of, a written notice of appeal which shall set concisely the action or decision appealed from and the reasons or grounds for the appeal.

The notice of appeal shall be filed with the chairman of the commission. The hearing officer shall set such appeal for hearing at the earliest reasonable date, and cause notice thereof to be served upon the appellant and the environmental director. The hearing officer shall file his report and recommendations with the commission and serve copies on the parties. The parties may serve exceptions to the report within ten (10) days from the date it is served on them. If no exceptions are filed within the period, the commission shall take appropriate action on the report. If exceptions are filed they shall be heard on reasonable notice by either party. In such proceeding to review exceptions to the hearing officer's report, the commission shall promptly render a written decision affirming, reversing or modifying the decision of the hearing officer, provided that the commission shall not take any action which conflicts with or nullifies any of the provisions of this act or rules enacted pursuant to the act. Any person aggrieved by the final administrative decision may seek review in accordance with the administrative procedure act, chapter 120, part III, Florida Statutes.

Section 10. Reporting of sources.—Any person engaging in any activity or operation which may be a source of air, water or noise pollution shall at the written request of the environmental director file with the commission on a form approved by the commission containing information relating to the processes and methods of manufacture; the composition and source of airborne effluents; rate and period of emissions; and such other information as the commission may prescribe.

Section 11. Permits may be required.—The commission may adopt rules and regulations making it unlawful for any person to construct, alter, expand, or operate any installation or plant which, through its operation or maintenance, may emit, discharge or permit to escape pollutants or contaminants into the air, water, soil or property without first obtaining a permit from the environmental director as may be provided by such rules and regulations. Commencing construction or operation under such permit to construct or to operate shall be deemed acceptance of all of the conditions so specified.

Section 12. Sampling and testing.—Any person who may be responsible for the emission of air, water or noise pollution from any source shall, upon request of the environmental director, provide in connection with such sources and related source operations, such sampling and testing facilities exclusive of instruments and sensing devices as may be necessary for the proper determination of the nature, extent, quantity and degree of such pollution. The environmental director may also require the person responsible for the source of contaminants to conduct tests which will show the contaminant emissions from the source and to provide the results of said tests to the environmental director. These tests shall be carried out under the supervision of the environmental director or his designated representative and at the expense of the person responsible for the source of contaminants.

Section 13. Open burning prohibited.—No person shall ignite, cause to be ignited, permit to be ignited, or suffer, allow or maintain any open burning except:

(1) Fires used only for noncommercial cooking of food for human beings or for recreational purposes.

(2) Any fire set or permitted by any public officer in the performance of official duty, if such fire is set or permission given for the purpose of weed abatement, the prevention of a fire hazard, including the disposal of dangerous materials where there is no safe alternate method of disposal, or in the instruction of public employees in the methods of fighting fires, which fire is, in the opinion of such official, necessary.

(3) Fires set for the purpose of instruction in the methods of fighting fires, provided prior permission has been granted by a public officer in the performance of official duty.

(4) Fires intended for the reduction on premises and by the occupation thereof, of domestic rubbish originating solely within any building or structure used primarily for dwelling purposes and containing three (3) or less dwelling units, provided a municipal, county, or commercial refuse collection service is not available on a systematic basis, or at least once a week, further provided that the burning does not produce smoke, soot, odors, visible emission, heat, flames, radiation, or other conditions to such a degree as to create a nuisance. A campfire or other fire will be allowed that is used solely for recreational purposes, for ceremonial occasions, for outdoor noncommercial preparation of food, or on cold days, for warming of outdoors workers, as long as excessive visible emissions are not emitted.

(5) Fires otherwise permitted by rule of the Commission.

Section 14. Section 14 repealed (Chapter 73-496, Laws of Florida).

Section 15. Violations; notice; citations.—Whenever evidence has been obtained or received establishing that a violation of this act or any rules or regulations adopted pursuant to this act has been committed, the environmental director shall issue a notice to correct the violation or a citation to cease the violation, and cause the same to be served upon the violator by personal service or certified mail or by posting a copy in a conspicuous place on the premises of the facility causing the violation. Such notice or citation shall briefly set forth the general nature of the violation and specify a reasonable time within which the violation shall be rectified or stopped, commensurate with the circumstances. If the violation is not corrected within the time so specified, or the violation stopped, or reasonable steps taken to rectify the violation, the environmental director shall have the power and authority to issue an order requiring the violator to cease or suspend operation of the facility causing the violation until the violation has been corrected, or the environmental director may institute action to compel compliance with the provisions of such notice or citation, and/or initiate proceedings to prosecute the violator for violation of this act.

Section 16. Emergency order; penalties.—In the event a violation of this act or the rules and regulations promulgated pursuant to this act creates an immediate health hazard or threatens immediate serious damage to the public health, or threatens or causes irreparable injury or damage to aquatic life or property, the environmental director shall have the power and authority to order immediate cessation of the operations causing such conditions. Any person receiving such an order for cessation of operations shall immediately comply with the requirements thereof. It shall be unlawful for any person to fail or refuse to comply with an emergency order issued and served under the provisions of this section.

Section 17. Nuisances prohibited.—No person shall cause, let, permit, suffer or allow any emission or discharge into the atmosphere or waters of any substance or thermal energy, or commit any act, which may cause injury, detriment or public nuisance to any person or the public or which endangers the comfort, repose, health or safety of any person or the public, or which causes or may reasonably be expected to cause injury or damage to business, vegetation or animals. Each day such violation exists shall constitute a separate offense.

Section 18. Prohibitions, violation, penalty, intent.

(1) It is unlawful for any person:

(a) To cause or to take such action as may reasonably be expected to cause air, water or noise pollution in Hillsborough County, or to otherwise violate any other provision of this act, or any rules adopted by the commission pursuant to this act.

(b) To violate or fail to comply with any order of the director or commission, including orders or rules fixing standards for noise, or air or water quality.

(2) Violation is punishable by a civil penalty of not more than $5,000 for the first offense and of not more than $5,000 for each offense thereafter. Each day during any portion of which such violation occurs constitutes a separate offense. Failure of any offender to pay any fine imposed under this section within a time set by the court when imposing said fine shall be evidence of an intent to violate orders of the commission and shall enable the court to enter an order for the offender to cease from doing business or carrying on operations within Hillsborough county.

(3) Violation of any provision of this act or any order, rule, regulation or permit issued pursuant to its authority is a misdemeanor of the second degree, punishable as provided in Florida Statutes, Chapter 775.082 or 775.083.

(4) It is the legislative intent that the civil and criminal penalties and fines imposed by the court be of such amount as to insure immediate and continued compliance with this act and rules and regulations pursuant thereto.

Section 19. Enforcement; procedure; remedies; proceedings for injunction.

The following remedies shall be available for violation of this chapter:

(1) Judicial remedies:

(a) The commission may institute a civil action in a court of competent jurisdiction to establish liability and to recover damages for any injury to the air, waters, or property, including animal, plant and aquatic life caused by any violation; and

(b) The commission may institute a civil action in a court of competent jurisdiction to impose and to recover a civil penalty for each violation in an amount of not more than $5,000 per offense, provided, that the court may receive evidence in mitigation. Each day during any portion of which such violation occurs constitutes a separate offense.

(c) It shall not be a defense to or ground for dismissal of these judicial remedies for damages and civil penalties that the commission has failed to exhaust all administrative remedies, has failed to serve notice of violation or has failed to hold an administrative hearing prior to the institution of a civil action.

(2) Administrative remedies:

(a) The director may institute an administrative proceeding before the commission to establish liability and to recover damages for any injury to the air, waters, or property, including animal, plant, or aquatic life caused by any violation. After a hearing the violator may be ordered to pay a specified sum as damages. Judgment upon the amount of damages may be entered in any court having jurisdiction thereof and may be enforced as any other judgment. Parties to an administrative proceeding for damages shall be afforded all rights of discovery permitted by the Florida rules of civil procedure, and appropriate orders may be issued to effectuate the purposes of discovery.

(b) An administrative proceeding for abatement, prevention, or control of violations, or for restoration, may be instituted by service by the director of a written notice of violation upon the alleged violator by personal service or certified mail or by posting a copy in a conspicuous place on the premises of the violation. The notice shall specify the provision of the law, rule, regulation, permit, certification, or order of the commission or director alleged to be violated and a summary of the facts alleged to constitute a violation thereof. Such written notice may provide that the alleged violator cease the violation. An order for restoration or other corrective action may be included in the notice, provided that no order of restoration shall become effective until after service and an administrative hearing, before the hearing officer, if requested within twenty (20) days after service of the notice. Failure to request an administrative hearing within the specified time period shall constitute a waiver thereof. Further conduct, procedure, discovery, and pleadings for the administrative proceeding shall be as provided by this act or the rules and regulations of the commission.

(3) Nothing herein shall be construed as preventing any other legal or administrative action in accordance with law or this act.

(4) Every order of the commission is legally enforceable, binding and reviewable only in accordance with the administrative procedure act, chapter 120, part III, Florida Statutes.

(5) The commission may institute a civil action in a court of competent jurisdiction to seek injunctive relief to enforce compliance with this chapter or any rule, regulation, permit, certification, or order, to enjoin any violation specified in section 17 or section 18(1), and to seek injunctive relief to protect or restore the air, waters, and property, including animal, plant and aquatic life from injury caused or threatened by any violation.

(6) All the judicial and administrative remedies in this section and section 15, as amended, are independent and cumulative except that the judicial and administrative remedies to recover damages are alternative and mutually exclusive.

Section 19A. Additional civil liability; assessment of damages; joint and several liability; pollution recovery fund.—

(1) Whoever causes air, water or noise pollution or damage to the animal, or plant life of Hillsborough county, or other damage to said air or waters is liable for such damages and the reasonable costs and expenses of the county or commission incurred in tracing the source of the pollution or damage and in restoring the air or waters or plant or animal communities to their former condition.

(2) Upon the request of the environmental director or any proper county officer or agency or the alleged violator, the commission may consider and assess these damages. If the amount so assessed is not paid within a reasonable time as prescribed by the commission, the commission may institute civil action in the appropriate court for a judicial determination of liability and damages.

(3) Nothing herein shall give the commission the right to bring an action on behalf of any private person. Nothing herein shall prohibit the commission from proceeding forthwith to obtain a judicial determination of the liability and damages. No finding, written report or recommendation of the commission made pursuant to this section shall be admissible in evidence in any action.

(4) Whenever two or more persons cause air, water or noise pollution in violation of this chapter or any rule, regulation or order of the commission, or otherwise violate this act, so that the damage is indivisible, each violator shall be jointly and severally liable for such damage and for the reasonable cost and expenses incurred in tracing the source of discharge or damage, in controlling and abating the source and the pollutants, and in restoring the air, waters, and property, including the animal, plant, and aquatic life to their former condition; provided, however, that if said damage is divisible and may be attributed to a particular violator or violators, each violator is liable only for that damage attributable to his violation.

(5) There is hereby created a pollution recovery fund which is to be supervised and used by the commission to restore polluted areas of the county, as defined by the commission, to the condition they were in before pollution occurred. The fund shall consist of all moneys recovered by the commission or director in an action against any person who has polluted or engaged in activity in violation of this act or any activity tending to pollute the air, soil or water of the county. The moneys, excluding recovered costs and expenses, shall be disbursed first to pay all amounts necessary to restore the respective polluted areas which were the subjects of commission action. Recovered cost and expenses may be used by the commission in any manner as may advance its purposes set forth herein. Any moneys remaining in the fund shall then be used by the commission, as it sees fit, to pay for any work needed to restore areas which require more money than the commission was able to obtain by court action or otherwise or to restore areas in which the commission brought suit but was unable to recover any moneys from the alleged violators.

Section 20. Appropriations—The board of county commissioners of Hillsborough county shall annually appropriate sufficient moneys as they shall deem appropriate to carry out the purposes of this act. In making such appropriations and in expending such funds, the board of county commissioners shall not be limited by the provisions of section 7, chapter 22323, Laws of Florida; section 1 chapter 57-1391, Laws of Florida, and section 1, chapter 63-1391, Laws of Florida. The appropriation, budgeting and expenditure of such funds is hereby declared to be for a public purpose. The commission may also accept any grant or donation for the purposes of this law.

Section 21. Construction of act.—The provisions of this act shall be liberally construed in order to effectively carry out the purposes of this act in the interest of the public health, safety and general welfare; provided the provisions of this act are not intended and shall not be construed as superseding or conflicting with any statutory provisions relating to, or rules and regulations promulgated by, the Florida state board of health, and the Florida department of pollution control, but shall be construed as implementing and assisting the enforcement thereof.

Section 22. Consolidation of governments.—In the event of the consolidation of the governments of the city of Tampa and Hillsborough county, all powers, functions, duties, responsibilities, obligations, and properties of the commision shall be transferred to and vested in the legislative branch of such consolidated government automatically by operation of law.

Section 23. Severability.—It is declared to be the legislative intent that, if any section, subsection, sentence, clause or provision of this act is held invalid, the remainder of the act shall not be affected.

Section 24. Effective date.—This act shall become effective October 1, 1967.

Became a law without the Governor's approval.

Filed in Office Secretary of State August 4, 1967.

APPENDIX B - MODEL COMMUNITY NOISE CONTROL ORDINANCE

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
2562 EXECUTIVE CENTER CIRCLE, EAST
MONTGOMERY BUILDING
TALLAHASSEE, FLORIDA 32301

REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

November 20, 1975

To Whom It May Concern:

The Florida Department of Environmental Regulation prepared this document in response to requests by Florida's local governments for assistance with their noise programs. The ordinance is intended to be a basic tool or a suggested approach which any size community can use to write noise control ordinances. Even in its final form, however, it is not intended that the ordinance be adopted verbatim by any municipality/county in the State. It must be refined to meet each individual community's local needs and conditions.

A draft of the U.S. Environmental Protection Agency "Model Community Noise Law" was used as a starting point in developing this ordinance at a Workshop in April, 1975, involving select university personnel from all regions in the State. Subsequent to this Workshop many revisions were made based on the constructive criticisms and suggestions solicited from numerous municipal and county officials in Florida as well as various concerned State Departments and agencies on the Federal level.

In order to effectively carry out a noise control program, a community must be willing to do more than simply adopt a noise control ordinance. An ordinance forms the basis of a noise control program, but it will only be an indicator of social concern and not social action unless the community obtains sufficient personnel and equipment for an enforcement program.

Our Department is looking forward to working with the local governments of Florida and continuing to assist them in their noise control efforts.

Sincerely,

Joseph W. Landers, Jr.

JWL/jkc
Enclosure

ARTICLE VI. PROHIBITED ACTS

DISCUSSION: This Article is not intended to limit the applicability of Article VII (Sound Levels By Receiving Land Use), but it is meant to supplement it in four main areas:

A. Cases where a noise source would be difficult, if not impossible to enforce under Article VII (eg. barking dogs, loading and unloading activities, etc.);

B. Situations where a noise source would be in compliance with Article VII and yet still cause a noise disturbance (eg. television or amplified musical instrument at night, etc.);

C. Areas in a community with special noise problems not covered in Article VII (noise sensitive zones, multi-family dwellings);

D. Noise sources which have specific sound level limits (eg. air conditioners) or have time restrictions for operation (eg. testing emergency signaling devices, etc.).

Enforcement action under "noise disturbance" (nuisance) provisions in this article should be used with caution. Unless a nuisance can be proven to be a public disturbance, it is difficult to prove in court and would best be used only when more specific sections in the ordinance do not adequately cover the problem.

6.1 NOISE DISTURBANCES PROHIBITED

No person shall unnecessarily make, continue, or cause to be made or continued, any noise disturbance.

6.2 SPECIFIC PROHIBITIONS

The following acts, and the causing or permitting thereof, are declared to be in violation of this ordinance:

6.2.1 RADIOS, TELEVISION SETS, MUSICAL INSTRUMENTS AND SIMILAR DEVICES

Operating, playing or permitting the operation or playing of any radio, television, phonograph, drum, musical instrument, or similar device which produces or reproduces sound:

(a) Between the hours of 10 p.m. and 7 a.m. the following day in such a manner as to create a noise disturbance across a residential or commercial real property line or at any time to violate the provisions of Article VII or Section 6.2.13, except for activities for which a variance has been issued by (appropriate authority).

(b) In such a manner as to exceed the levels set forth for public space in Article VII, measured at a distance of at least 50 feet (15 meters) from such device operating on a public right-of-way or public space.

6.2.2 LOUDSPEAKERS

Using or operating for any purpose any loudspeaker, loudspeaker system, or similar device between the hours of 10 p.m. and 7 a.m. the following day, such that the sound therefrom creates a noise disturbance across a residential real property line, or at anytime violates the provisions of Article VII or Section 6.2.13, except for any non-commercial public speaking, public assembly or other activity for which a variance has been issued by (appropriate authority).

DISCUSSION: To avoid conflict with the constitutionally protected rights of freedom of speech and freedom of expression, care must be taken to outline clear, objective and non-discriminating standards for determining whether and in what cases a variance should be granted.

6.2.3 STREET SALES

Offering for sale, selling anything or advertising by shouting or outcry within any residential or commercial area or noise sensitive zone of the (city/county) except by variance issued by (appropriate authority).

6.2.4 ANIMALS

Owning, possessing or harboring any animal or bird which frequently or for continued duration, howls, barks, meows, squawks, or makes other sounds which create a noise disturbance across a residential or commercial real property line or within a noise sensitive zone. This provision shall not apply to public

6.2.5 LOADING AND UNLOADING

Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects between the hours of 7 p.m. and 7 a.m. the following day in such a manner as to cause a noise disturbance across a residential real property line or at anytime to violate the provisions of Article VII or Section 6.2.3.

6.2.6 CONSTRUCTION

Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between the hours of 7 p.m. and 7 a.m. the following day on weekdays, or at any time on (Sundays/weekends) or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real property line or at anytime violates the provisions of Article VII or Section 6.2.13, except for emergency work of public service utilities or by variance issued by (appropriate authority). This section shall not apply to the use of domestic power tools as specified in Section 6.2.14.

6.2.7 VEHICLE, MOTORBOAT, OR AIRCRAFT REPAIRS AND TESTING

(a) Repairing, rebuilding, modifying, or testing any motor vehicle, motorboat, or aircraft in such a manner as to create a noise disturbance across a residential real property line, or at anytime to violate the provisions of Article VII or Section 6.2.13.

(b) Nothing in this Section shall be construed to prohibit, restrict, penalize, enjoin or in any manner regulate the movement of aircraft which are in all respects conducted in accordance with, or pursuant to applicable Federal laws or regulations.

6.2.8 EXPLOSIVES, FIREARMS, AND SIMILAR DEVICES

Using or firing explosives, firearms, or similar devices such that the sound therefrom creates a noise disturbance across a real property line, or within a noise sensitive zone, public space or public right-of-way, without first obtaining a variance issued by (appropriate authority). Such a variance need not be obtained for licensed game-hunting activities on property where such activities are authorized.

6.2.9 POWERED MODEL VEHICLES

Operating or permitting the operation of powered model vehicles:

(a) Between the hours of 7 p.m. and 7 a.m. the following day so as to create a noise disturbance across a residential or commercial real property line or at anytime to violate the provisions of Article VII or Section 6.2.13.

(b) In such a manner as to exceed the levels set forth for public space land use in Article VII measured at a distance not less than 100 feet (30 meters) from any point on the path of a vehicle operating on public space or public right-of-way.

6.2.10 STATIONARY NON-EMERGENCY SIGNALING DEVICES

(a) Sounding or permitting the sounding of any electronically-amplified signal from any stationary bell, chime, siren, whistle, or similar device, intended primarily for nonemergency purposes, from any place, for more than 10 seconds in any hourly period.

(b) Houses of religious worship shall be exempt from the operation of this provision.

(c) Sound sources covered by this provision and not exempted under subsection (b) shall be exempted by a variance issued by (appropriate authority).

6.2.11 EMERGENCY SIGNALING DEVICES

(a) The intentional sounding or permitting the sounding outdoors of any fire, burglar, or civil defense alarm, siren, whistle or similar stationary emergency signaling device, except for emergency purposes or for testing, as provided in subsection (b).

(b) (i) Testing of a stationary emergency signalling device shall not occur before 7 a.m. or after 7 p.m. Any such testing shall only use the minimum cycle test time. In no case shall such test time exceed 60 seconds.

(ii) Testing of the complete emergency signaling system, including the functioning of the signaling device and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before 7 a.m. or after 10 p.m. The time limit specified in subsection (i) shall not apply to such complete system testing.

(c) Sounding or permitting the sounding of any exterior burglar or fire alarm or any motor vehicle burglar alarm unless such alarm is automatically terminated within 15 minutes of activation.

6.2.12 MOTORBOATS

Operating or permitting the operation of any motorboat in any lake, river, stream, or other waterway in such manner as to cause a noise disturbance across a residential or commercial real property line or at any time to violate the provisions of Article VII or Section 6.2.13.

DISCUSSION: This section is particularly important in Florida because of the tremendous amount of boating activity. Since the exposure level from motorboat noise is operator dependent (i.e., the motorboat operator determines the distances to shorelines and the throttle settings, as well as maintains the condition of the motor), Article VII was supplemented to include enforcement *against motorboats as a noise disturbance. Enforcement procedures need to be addressed by the EPO/NCO in the Code of Recommended Practices.*

6.2.13 NOISE SENSITIVE ZONES

(a) Creating or causing the creation of any sound within any noise sensitive zone, so as to exceed the residential land-use levels set forth in Article VII when measured at a distance of at least 25 feet (7.5 meters) from the sound source, provided that conspicuous signs are displayed indicating the presence of the zone; or

(b) Creating or causing the creation of any sound within or adjacent to any noise sensitive zone, containing a hospital, nursing home, school, court or other designated area, so as to interfere with the functions of such activity or annoy the patients in the activity, provided that conspicuous signs are displayed indicating the presence of the zone.

6.2.14 DOMESTIC POWER TOOLS

(a) Operating or permitting the operation of any mechanically powered saw, sander, drill, grinder, lawn or garden tool, or similar tool between 10 p.m. and 7 a.m. the following day so as to create a noise disturbance across a residential or commercial real property line.

(b) Any motor, machinery, pumps, etc., shall be properly muffled and maintained in good working order so as not to create a noise disturbance.

DISCUSSION: Section 6.2.14 (a) restricts the operation of domestic power tools during the night while Section 6.2.14 (b) requires control of power machinery noise through adequate muffling and/or maintenance in instances where such noise constitutes a noise disturbance. The intent of this latter section is to control power machinery noise causing a disturbance when the technology is readily available.

6.2.15 MULTI-FAMILY DWELLINGS

(a) Operating or permitting the operation within a multi-family dwelling any source of sound, in such a manner as to exceed 55 dBA from 7 a.m. to 10 p.m. or 45 dBA from 10 p.m. to 7 a.m. when measured within an adjacent intra-building dwelling. These noise limits shall not be exceeded more than ten percent of any measurement period, which shall not be less than 10 minutes.

(b) The maximum permissible sound level, when measured in an adjacent intra-building dwelling between 10 p.m. and 7 a.m. the following day, shall be 50 dBA.

6.2.16 AIR-CONDITIONING OR AIR-HANDLING EQUIPMENT

Operating or permitting the operation of any air-conditioning or air-handling equipment in such a manner as to exceed any of the following sound levels when measured as specified in the Code of Recommended Practices:

Measurement Location	dB(A)
Any point on neighboring property line	60
Center of neighboring patio	55
Outside the neighboring living area window nearest the equipment location	55

DISCUSSION: The above sound levels and the measurement procedures (Code of Recommended Practices) were suggested by the Air-Conditioning and Refrigeration Institute, a trade association whose members produce more than 90% of U.S. made air-conditioning and refrigeration equipment.

6.2.17 PLACES OF PUBLIC ENTERTAINMENT

Operating or permitting to be operated, any loudspeaker or other source of sound in any place of public entertainment that exceeds the levels shown in Table I at any point normally occupied by a customer, without a conspicuous and legible sign stating "WARNING! SOUND LEVELS WITHIN MAY CAUSE PERMANENT HEARING IMPAIRMENT".

TABLE I

PERMISSIBLE NOISE EXPOSURES

Duration per day, continuous hours	Noise level dBA
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

DISCUSSION: This Section does not interfere with the duty of the employer to notify employees of excessive sound levels, an area governed by the Federal Department of Labor and not subject to local regulation. The Section, is intended to be a public education mechanism and has been modeled after the U.S. Surgeon General's warning on cigarette smoking.

ARTICLE VII. SOUND LEVELS BY RECEIVING LAND USE

DISCUSSION: This is one of the most important Sections in the ordinance. It establishes the permissible noise levels by receiving land use and provides the basis for most of the provisions in Article VI, Prohibited Acts. The sound levels were determined by comparing surveys of noise codes of communities across the nation, the levels established by existing noise codes in Florida and studies of the existing noise levels for numerous communities in the country. While these are the suggested permissible noise levels, a community should closely examine the ability of these limits to effectively deal with the noise problems existing within its jurisdiction. Basically, two sets of sound levels are established: one set (Table II) is directed toward long-time noise exposure (90% of the time) while the second set (Section 7.1(b)) is directed at shorter duration, but louder noise sources (less than 10% of the measurement period). Such a noise control strategy does allow for brief loud excursions which exceed the levels in Table 2, but Section 7.1(b) sets a limit on how loud these excursions can be.

7.1 MAXIMUM PERMISSIBLE SOUND LEVELS BY RECEIVING LAND USE

(a) No person shall operate or cause to be operated any source of sound in such a manner as to create a sound level which exceeds the limits set forth for the receiving land use category in Table 2, more than ten percent of any measurement period, which shall not be less than ten minutes when measured at or beyond the property boundary of the receiving land use.

TABLE 2
SOUND LEVELS BY RECEIVING LAND USE

Receiving Land Use Category	Time	Sound Level Limit dBA
Residential, Public Space, or Institutional	7 a.m. - 10 p.m.	60
	10 p.m. - 7 a.m.	55
Commercial or Business	7 a.m. - 10 p.m.	65
	10 p.m. - 7 a.m.	60
Manufacturing, Industrial or Agricultural	At All Times	75

(b) For any source of sound the maximum sound level shall not exceed the sound level limits in Table 2 by:

i. 10 dBA from 7 a.m. to 10 p.m.

ii. 5 dBA from 10 p.m. to 7 a.m.

iii. 10 dBA at all times in a manufacturing, industrial or agricultural land use.

7.2 CORRECTION FOR CHARACTER OF SOUND

For any source of sound which emits a pure tone, the sound level limits set forth in Section 7.1 shall be reduced by 5 dBA.

DISCUSSION: The use of pure tones as corrections can create measurement problems. In most enforcement situations, the presence or absence of a pure tone can be determined with the ear. The first part of the definition for "pure tone" is written to accomodate this fact. In cases where it is more doubtful, the remaining part of the definition can be used to precisely define a pure tone. However, this latter definition requires the use of a 1/3 Octave Band Analyzer, which can be expensive to purchase.

7.3 EXEMPTIONS

The provisions of this article shall not apply to:

(a) activities covered by the following Sections - 6.2.3. (Street Sales), 6.2.4. (Animals), 6.2.10 (Stationary Non-emergency Signaling Devices), 6.2.11 (Emergency Signaling Devices), 6.2.14 (Domestic Power Tools), 6.2.16 (Air-Conditioning and Air-Handling Equipment), 8.1 (Motor Vehicles Operating on Public Right-Of-Way), 8.1.1 (Refuse Collection Vehicles);

(b) the unamplified human voice;

(c) interstate railway locomotives and cars;

(d) non-stationary farming equipment;

(e) aircraft operations; or

(f) routine maintenance of public service utilities.

ARTICLE VIII. MOTOR VEHICLE MAXIMUM SOUND LEVELS

8.1 MOTOR VEHICLES OPERATING ON PUBLIC RIGHT-OF-WAY

Motor vehicles on a public right-of-way are regulated as set forth in the Florida Motor Vehicle Noise Prevention and Control Act of 1974, Chapter 74-110, Laws of Florida.

DISCUSSION: The operating noise limits of the Florida Motor Vehicle Noise Prevention and Control Act of 1974 are covered in S 316.293, F.S.. This is part of the State Uniform Traffic Code. Persons having enforcement authority are Florida Highway Patrol, County Sheriffs and local or municipal police agencies. As referenced in FAC 17.18.04 these people must be trained and certified in sound level monitoring and enforcement procedures by the FHP and DER before they can enforce S 316.293, F.S.

8.1.1 REFUSE COLLECTION VEHICLES

No person shall collect refuse with a refuse collection vehicle between the hours of 7 p.m. and 7 a.m. the following day in a residential area or noise sensitive zone.

8.2 RECREATIONAL MOTORIZED VEHICLES OPERATING OFF PUBLIC RIGHT-OF-WAY

No person shall operate or cause to be operated any recreational motorized vehicle off a public right-of-way in such a manner that the sound levels emitted therefrom violate the provisions of Article VII or Section 6.2.13. This Section shall apply to all recreational motorized vehicles, whether or not duly licensed and registered, including, but not limited to, commercial or non-commercial racing vehicles, motorcycles, go-carts, amphibious craft, campers and dune buggies, but not including motorboats.

ARTICLE IX. EXCEPTIONS AND VARIANCES

DISCUSSION: There will always be some justified activities for which a variance will be required. If these activities are traditional events in the community (Veteran's Day Parade, sports events, etc.) it would be preferable to grant a blanket exception under Section 7.3 rather than requiring a variance on a case-by-case basis.

9.1 EMERGENCY EXCEPTION

The provisions of this ordinance shall not apply to: (a) the emission of sound for the purpose of alerting persons to the existence of an emergency, or (b) the emission of sound in the performance of emergency work.

APPENDIX C - COMPLAINTS PROCEDURES AND RESULTS

C-1 Complaints Information Form

C-2 Complaints by Category

Information from Property Line Noise Complaint Files

Complaint No. ______________

1. Date of first complaint ________________________________
2. Location of complainant (mark on county map with complaint No.)
3. What time of day was complainant bothered?
   ( ) At night (10 p.m. to 7 a.m.)
   ( ) Evening (7 p.m. to 10 p.m.)
   ( ) Daytime (7 a.m. to 7 p.m.)
4. What was the source of noise and the location of the source? (For example: loading dock noise at shopping center; window air conditioner in private house; trash pickup in residential area; cooling towers at high rise apartment building.) ______
   ____
   ____
   ____
   ____
   ____
5. Was Official Notice to Correct given? ( ) Yes ( ) No
6. Was citation given? ( ) Yes ( ) No
7. Was citation appealed? ( ) Yes ( ) No
8. Number of times violator was contacted by enforcement personnel (counting visits and meetings).
9. Date investigation closed: ______________________________
10. If not closed, what is present status?

11. What specific action was taken by the responsible party to abate or reduce the noise levels?

12. Number of houses or dwelling units affected (could have been bothered) by the noise __________

13. Sound Level Measurement Information

- Source operated:
  - ( ) Continuously
  - ( ) Many times each day
  - ( ) A few times each day
  - ( ) Once each day
  - ( ) Every other day
  - ( ) Once or twice a week
  - ( ) Less than once a week

A. Source Noise Levels Before Corrective Action

Date of measurement: ____________________

Time of measurement: ____________________

Measured Maximum Level: ____________________ dB(A)

Distance from source: ____________________ ft

B. Source Noise Levels After Corrective Action

Date of measurement: ____________________

Time of measurement: ____________________

Measured Maximum Level: ____________________ dB(A)

Distance from source: ____________________ ft

C. Noise Levels Without Source Operating

Date of measurement: ____________________

Time of measurement: ____________________

Measured Level: ____________________ dB(A)

(Note: This form was used initially by BBN to organize EPC complaints data; because putting that data together in this form has helped to identify weaknesses in the EPC complaints procedures, it has subsequently been adapted by Hillsborough County for routine use.)

Appendix C-2 - Complaints by Category

Categories of Complaints Received by EPC 6/76 - 8/78

Categories	Numbers of Complaints	
Industrial		
Equipment	24	
Operations	10	
Aircraft Maintenance	1	
		35
Commercial		
air-conditioning	1	
loading/unloading dock	1	
amplified voice and music	26	
refrigeration units	2	
		30
Residential		
animals (barking dogs)	2	
central air-conditioning units	7	
window air-conditioners	4	
domestic disturbances	2	
home power equipment and tools	8	
motorcycle repair	4	
music	10	
pool pump	1	
chanting	1	
church bells	1	
idling trucks	6	
		46
Other Categories		
Agricultural	8	
Aircraft	3	
Motor Vehicles		
recreation vehicles	9	
street traffic	3	
race tracks	2	
motorcycles	6	
emergency	1	
		21
Trains		2
Construction		
Building	2	
Blasting	1	
		3
Miscellaneous		7
	Total Complaints	155

Note: Data furnished, courtesy of Bolt, Beranek and Newman, Inc., Cambridge, Mass. 02138.

APPENDIX D - NEWSPAPER ARTICLES ON HISTORY ENVELOPING THE PERIOD THE NOISE RULE WAS DEVELOPED AND PASSED

Appendix D - Newspaper Articles on History Enveloping the Period the Noise Rule was Developed and Passed.

$5,000.00 Penalty Voted on Pollution Violations, 4/15/71, Time Staff Report, Tallahasee

After a long hassle over the constitutionality of the act, the House Committee today voted to pass a bill paying a $5,000.00 penalty in violation of State pollution laws.

The passage of the crimical justice committee is subject to an attorney, general's opinion on a constitutionalit of the proposed law.

Sponsor of the bill, Republican Guy Spicola D-Tampa, assured the committee that the opinion would be favorable. Spicola, Chairman of the House Environmental Pollution Control Committee said the bill puts teeth into pollution acts passed last year.

Procedure for criminal penalties was inadvertently omitted from-the law, he said.

Republican Jeff Gautier D-Miami attempted to stall the bill on several legal technicalities which he claimed headed up to unconstitutionality.

Gautier voted against reporting the bill to the House for the bill was already passed Spicola's committee.

City Needs Noise Pollution Ban 3/30/72, Tampa Times

I have been a citizen of Tampa since 1945 and have consistently visualized our fair city as being truly modern with the protection of its tax payers and citizens being assured. However, after my experience with drivers of refrigerated trucks for the past three weeks, I am convinced that the city desperately needs an ordinance against noise pollution.

With our present ordinances or lack of interpretation, thereof, it would seem that refrigeration transporters and the accompanying noise after 10 P.M. has complete jurisdiction over citizens and their police force.

I and others in the neighborhood have lost three weekends of rest due to this noise. It would be most appropriate at this time if we had an immediate and positive action from our elected city officials.

With all due respect, my thanks to Councilman Lloyd Kopel and the police of the city of Tampa for intervening on my behalf.

Proposed Noise Rules and Counter Stiff Resistance, 10/13/72 by James Walker, Tribune Staff Writer

The concrete industry offered stiff resistance yesterday to any regulation of noise in Hillsborough County.

The assertions ranged from applying the label of fantasy on any claims the county even has a noise problem to predictions of economic disaster if the county did anything about the problem.

The protest came at a work session on proposed noise regulations held by the Hillsborough County Commission sitting as the Environmental Protection Commission.

The Environmental staff has been working some six months with proposed regulations, but Roger Stewart, Environmental Director said yesterday that he favors starting over with a clean slate.

He did not expand on why, but Commissioner Ray Campo said that judging from his calls the matter was going to be extremely touchy and difficult.

When Commissioner Frank Neff, Chairman of Environmental Protection invited comments from the public, Clay McCollough, Manager of the west coast Chapter of Associated General Contractors said, "If we had our druthers, we would rather not pass anything."

Attorney J.H. Peterson representing the Florida Concrete Pipe Institute said "The edge of competition" was such in the industry that any rules applying only in Hillsboro would have an adverse effect on business and labor force.

Most critical, however, was Ralph W. Hughes, President of the Cast-Crete Corporation, who submitted his personalized list of Fantasy and Fact on noise in the county. It is fantasy he alleged that noise is a serious problem except that the airport, MacDill Air Force Base and on the Interstate Highways, which the county can do nothing about.

The Federal Government is spending millions on noise studies. That's the level such a problem should be handled on," he said.

He asserted that Stewart & staff were copying a Chicago ordinance which reportedly has been a total flop, "he continued.

"A local ordinance such as this would eliminate many jobs causing expenditure of untold millions of dollars," he said.

Later in an interview he indicated that the favored international noise control to be put on industrial competitors on an equal footing.

"Why should Hillsborough be a guinea pig?" he asked.

Tampa Tribune
8-26-72 3313

Stewart: ‘No’

Chamber Asks Delay of Hearing

The Greater Tampa Chamber of Commerce requested Hillsborough Commission yesterday to postpone for 30 to 90 days a public hearing scheduled for Tuesday dealing with proposed air and noise pollution regulations.

But Roger Stewart, director of The County Environmental Protection Commission, said no.

In a letter to commissioners, Charles M. Davis, chamber president, cited the vacation season and said both chamber members and the general public had insufficient opportunity to analyze consequences of the rules. Davis was out of town on vacation and could not be reached for further comment.

REFERRING TO the letter Stewart said, "Any excuse they (chamber members) don't know what is going on is utterly ridiculous."

Stewart said it would be impossible to reschedule the public hearing. The Tuesday session has been advertised for the past 30 days as required by law, he said.

If Hillsborough County has not adopted by Oct. 1 rules regulating air and noise pollution similar to those drawn by the county agency, then $81,000 in federal funds would be lost, Stewart said.

THE RULES proposed are no stricter than state laws already on the books to regulate air and noise pollution, with one exception, Stewart said.

State laws governing visible emissions from smoke stacks exempts emissions from cement processing such as Florida Portland Cement engages in, Stewart said. The county rules would not exempt the cement company, he said.

Stewart's staff has copies of the proposed rules available to be handed out to the public and reportedly requests from business and industry for copies have been running high.

County studies rules to control noise pollution

6/12/73

By MORRIS KENNEDY
Times Staff Writer

Hillsborough County officials may soon adopt a noise control rule as part of the Environmental Protection Commission (EPC) regulations.

EPC director Roger Stewart is expected to present the Hillsborough County Commissioners, sitting as the EPC, with a proposed noise rule today. Stewart said the rule was modeled after several noise regulations in the United States and it will "need some perfecting."

"It gives us a good start. I don't think it is going to be super restrictive of anyone particularly," Stewart said.

The proposed rule would prohibit:

— The operation of an internal combustion engine without an "adequate and effective muffling device.

— Operating air or other gas compressors without noise control.

— Sounding a car horn on a street or public place of the county "except as a warning."

— Using "any radio, musical instrument, phonograph, or other machine or device for producing sound" so that it disturbs the "peace, quiet and comfort" of neighbors.

— Using any radio, musical instrument, phonograph, loudspeaker, sound amplifier, or other sound machine "for the purpose of commercial advertising or attracting the attention of the public to any building or structure."

— The operation of construction and industrial machines with noise levels in excess of 90 decibels "withi any occupied residenti area."

— Engaging in or permitting construction that cause excessive noise in any are other than on weekdays between the hours or 7 a.m. an 9 p.m.

The restriction on constru tion activities does not appl to work that does not excee levels listed on a table of al lowable noise levels betwee the hours of 6 p.m. and 7 a.m.

The table would allow up t 74 decibels for 10 minute within occupied residenti areas, and lower sound leve as the amount of time increases. For more than fiv hours 58 decibels is the ma imum on the table.

Stewart strongly emph sized that the rule will n apply when the sound do not bother anyone.

"We are not going to r quire controls unless the noi is impinging on people Stewart said, and added th noise which seriously disrup farm animals could be cons ered a violation.

The proposed rule lists fo exceptions:

— The operation ot warni or emergency signals."

— Noise from equipment operations during an emergency repair of facilities a restoration of services "su as public utilities or oth emergency activities in th public interest."

— "Ordinary noise fro existing highways, railway shipping lanes, and from ai craft in unavoidable traff patterns."

— "Noises consistent wi cultural, historical or trac tional observances, holida and ceremonies."

Noise pollution rules to be drawn

5/8/73

By MORRIS KENNEDY
Times Staff Writer

Hillsborough County will make the first move toward the establishment of a noise pollution ordinance today, according to county environmental protection officials.

Roger Stewart, director of the county Environmental Protection Commission (EPC) said he will recommend the adoption of a noise rule under EPC rules at a meeting of the commission today.

"I'm going to recommend that rather than go whole hog, we just get some preliminary standards on the books. This will cover most of the complaints we get," Stewart said.

EPC noise authority Bob Jones said pollution officials will draw up a set of rules during the next month and present them to the county commission, who sit as the EPC, to familiarize them with the rules before public hearings are necessary.

A public hearing is required before rules such as this can be adopted, Jones said.

"As far as I am concerned, these rules will have a nuisance clause, decibel limits and also frequency discretion (referring to the pitch of a noise)," Jones said.

"I do not intend to get involved with dogs, minah birds, loud playing radios or phonographs. We don't have enough people for that," Jones said.

Aircraft noise will also not be subject to county noise under federal regulation, Jones said.

D-1-3

Commissioners Neff and Elswood Simmons also indicated an intention to move slowly.

SATURDAY, AUGUST 4, 1973 - TRIBUNE

A workshop will be held Thursday by the Hillsborough County Environmental Protection Commission to discuss with industrial and commercial concerns the proposed noise law.

The purpose of the workshop is to give people a chance to question as well as to listen for the reasoning behind the proposed noise pollution law said Roger Stewart, Director of Hillsborough County Environmental Protection.

People have been complaining about noise pollution Stewart said.

"With a proposed law we will be able to cover about 80% of the different kinds of noise complaints that we have had." Stewart said, "It will not answer all of our problems, but it will give us a working tool."

Noises that will be deemed excessive or unnecessary by the proposed law include horns, signaling devices, etc., on the automobile, truck or any other vehicle on any street or public place in the country, except as a danger signal. Radios, phonographs, etc., operated in such a way as to disturb the peace, quiet, and comfort of neighbors. Loud speakers, amplifiers for advertising in public streets, steam whistles, except at set times, exhausts without a muffler.

"The public will have a chance to air their opinions of the proposed law, as soon as the county commission sets a date for the public hearing," said Stewart.

HOT WATER MAKES STEWART HARD-BOILED -- 12/1973 EXERPTS

"We're attempting to get Roger Stewart to agree on a reasonable approach and we never seem to get that," Commissioner Carl Carptenter said angrily during the EPC meeting.

Rodriques said if Stewart is operating under proper legal authority in denying the permits, he will support Stewart's stand. "The legal question must be resolved," the veteran commissioner said.

"If he has such authority I have no choice regardless of personal feelings. I would have to support him in his action," Rodriques said.

"Some more ground rules will have to be laid if Stewart is not operating on a sound legal basis," he said.

Stewart told the commission he chose to accept the delegation of authority from the State. An EPC attorney, Robert MacKenzie, warned that if Stewart's agency doesn't handle the applications the State will do it itself.

Rodriques praised Stewart calling him the most dedicated county department head he has ever known.

"He's the first one that doesn't waiver one degree. He'll tell you like it is and if you override him and have the authority, then that's fine," Rodriques said.

Stewart follows "the letter of the law", Rodriques said. Adding, "this is what makes him so unpopular with elected officials."

"I will have to support him as long as he's doing his job one hundred percent although doing it to the letter of the law makes it uncomfortable politically," Rodriques said.

Concerning the Brandon issue Rodriques emphasized that he would have to make a decision on whether Stewart is acting under legal authority before taking a stand.

CHOICES FOR BOB CURRY - 12/23/73

How Bob Curry promoted himself from Recreation Supervisor to County Commissioner is obvious. (Bob Curry is one of Roger Stewart's foremost opponents.)

If Curry would keep his mouth shut he might pull it off for one term; however, if he is going to attack persons like Roger Stewart and especially on an issue directly affecting public health he should asked to step down.

Curry should be given the choice: (1) a seat without a voice; (2) a voice without a seat. Patricia Ann Gerlits

CURRY FIGHTS STEWART -- TAMPA NEIGHBOR 3/13/74 EXERPTS

Q. It seems that every once in a while the Board has a little run-in with Roger Stewart and his Environmental Protection Agency. What is the nature of this conflict?

A. (Curry) The nature of the problem is basically the attitude of the Director of the Environmental Protection Agency. It is my belief that the big decision and final decisions anything affecting the people should be made by the elected officials because the voting public has recourse with elected officials. If they don't do a good job for you, then they are going to fire you in the next election. But appointed people are a little different--they seem to hang on regardless of who gets elected.

To put so much power and so much authority in one person is almost like saying that you are in favor of a dictatorship. I think Roger Stewart's job is a necessary job. I think we're all for a better quality of life-we are all for reducing pollution. If anybody is not for these good things in life then they are just foolish people.

If you do things that affect people's jobs--if you cause industry to cut back or move out of the area or to go out of business because you make them spend too many dollars on pollution control, then how in the world can you have a quality of life with no dollars in the pocket.

A man in Roger Stewart's place can take this attitude and not have to care what happens with public opinion. The burden is on elected officials to do what is right and do what the people can afford.

Everytime we make TECO spent $15-20 million dollars on pollution reduction it is passed on to the local people that we represent. Elected officials have to use some reason whereas appointed persons such as Roger Stewart don't seem to use reason.

Other appointed people don't have quite the attitude that Roger Stewart does. He is an individualist--a different breed than the norm.

He tells me, "I know I take the purest attitude than the elected officials (who are) are forced to take the middle of the road. If I took the middle of the road, the elected officials would be on the other side of the situation."

I disagree with Roger because as you know I was reared right here in this county and I want a clean Bay. I love it and I want to eat the good mullet out there.

I remember when we used to get all the good crabs out there--I don't like all the pollution at Hooker's Point. I don't like all the effluent going out into the Bay.

The city of Tampa has a program to stop it and we have a long range program that is going to take all of these bad plants out and go to advanced treatment. But Roger seems to want to stop everything now and solve the problem and then go again.

I think that is an unreasonable approach. It could cause a community-wide convulsion that would hurt a lot of people.

You can't tax people enough to cure all our hundreds of years of built-up pollution problems overnight.

I told Roger, "What we don't like about you is that you go out and blast us and you tell the public that we don't understand the problem. Who do you think you are? I think you are just another human being--right sometimes and wrong sometimes." To give a man such power is down right dictatorial.

What burns me up, you know is this. I say he is a grandstander. He loves his picture in the paper and he loves the rah-rah and he's got his little clique of cheerleaders who follow him around and rah-rah for him.

I don't mind bearing the obsolute truth from Roger but don't go out and say we're a bunch of damned fools.

Q. Who are Stewart's cheerleaders?

A. Some of the young reporters are very definitely totally on his side. To give you an example, Jim Walker is one of his real close friends. He writes for the Tribune and he follows the environmental issues and is very very close to Roger.

Q. I'd like to touch briefly on the city-county relationship here. Don't you think there needs to be a boss between the county and the city?

A. That is a good question. It has a lot of political ramifications, but basically charter government would be fine but because of the way it is written and because of the constitution it would be a way to get consolidation.

As I told you before I believe in democracy. That means the majority rules. Anything that smacks of consolidation at this time would be rejected because people have defeated that idea three times.

Q. Would you describe the communication problem as you see it?

A. The problem is between the two local governments. We get along fine with the people of Temple Terrace and we get along fine with the people of Plant City, and we get along fine with some of the city Council members.

Some of their (city councilmen) attitudes are bad.

When I first came aboard we had four new commissioners and we set up a joint meeting. A few city councilmen used this as an opportunity to slam county government when the whole meeting was called in a spirit of cooperation.

If that is what is going to happen everytime we meet it is really a waste.

Somethings need to be handled on a smaller basis. Somethings need to be handled on a larger basis, but I think eventually we will have charter government here.

I wouldn't want to say I'm for the county taking over the city unless the people tell me this is what they want. I predict that as well as county government is reorganizing now that in a few years we will be in a position to be the government to take over the county government and operate the whole thing if this is what the people want.

Stewart often took an unwaivering hardline environmentalist approach because as Commissioner Curry quoted, Stewart, "If I took the middle of the road, the elected officials would be on the other side of the situation." Stewart apparently took the "purest approach" to get something done environmentally. But when Stewart took a hardline position on one politically hot environmental issue and made his position known to FDER, the county commissioners fired him.

COMMISSION FIRES STEWART - OUSTED BY 2-3 VOTE 3/25/74 (EXERPTS) - Morris Kennedy, Tampa Times

Roger Stewart, Hillsborough County's Environmental Protection Director was fired today by county commission for insubordination for a 3-2 vote.

On a motion from Commissioner Bob Curry, seconded by Commissioner Bob Lester, the commission voted to replace Stewart as soon as possible charging him with insubordination in connection with his recent testimony before the Florida Department of Pollution Control, DPC Board.

Environmental Protection Commission Chairman Rudy Rodriques referred to the vote as "a momentous occassion," and said he supported Curry's motion to fire Stewart because the "discordant" atmosphere between the commission and its EPC Director had become "unbearable."

"The Board is probably doing you a favor," Rodriques told Stewart.

Lester said Stewart had "a track record of gross insubordination" that was "demoralizing other county departments."

Commissioners Betty Castor and Carl Carpenter voted against Stewart's removal. "I don't think we'll be doing the community a favor with this action." Mrs. Castor said arguing that Stewart was not instructed to avoid the DPC hearing last week and did not represent himself as a spokesman for the county commission but as an individual.

Carpenter asked that the vote be "held in abeyance until the commission could examine the records of the DPC meeting.

"I don't think there's probably any doubt that for the last year and a half there has been some insubordination. This may well be the straw that breaks the camel's back," Carpenter said, adding that he would first like to see the records of the hearing before voting.

Today's vote came just two days after a Times article in which Stewart said he was being pressured to run for Carpenter's county commissioner seat.

In that story Stewart said he was "closer to saying no than yes" that he would run "whether I liked it or not," if he concluded it was in the public interest.

Following the action today, Stewart said he could not say whether he would seek the commission seat.

Referring to his potential replacement he said "Who ever serves them in this capacity serves them not if he says yes to their every whim."

Before the final votes were cast, Stewart urged the commission to review the records of the DPC meeting last week.

STEWART CASE SETS US PRECEDENT -- Pat Allen, Times

The case of Roger Stewart has set a national precedent according to Federal officials and will set more before it is closed.

U.S. Department of Labor Attorney James Johnson said in Washington, D.C. yesterday, Stewart's appeal of his March firing by the Hillsborough Commission has gone further without resolution than any other similar case. The other cases brought to the attention of the Labor Department were resolved easily below the Washington level.

"This is the first case of dissemination under the Water Pollution Act that has gotten into a formal stage," Johnson said.

From here on if the Commission persists in its refusal to ever consider reinstating Stewart, the former Director of the County Environmental Protection Commission, ensuring action by the Labor Department and the U.S. Environmental Protection Agency will set precedent, officials say.

Johnson disagreed with an EPA attorney on which agency would enforce the ultimate Federal order in the case if the case gets that far. They disagreed because there is no precedural history to reply upon. No case has ever gone as far as the decision and order from Labor Secretary Peter Brennan so no one has ever had to decide which of the two agencies would be responsible for enforcing the order or seeking redress for noncompliance.

Stewart appealed his firing on the grounds that it violated the 1972 Water Pollution Prevention and Controls Act, section 507 an employee protection clause. He was fired by a majority of the commission for insubordination after testifying at a State Pollution Control hearing without the commissions permission, reflecting his opinion rather than the Board's.

The commission and Stewart received letters earlier this week from the Labor Department informing them its preliminary investigation of Stewart's dismissal indicated the action was against the employee protection provision.

LESTER'S PRO-STEWART VOTE DOESN'T MEAN HE'S FORGETTING - 8/14/74 -- by Harry Costello - Times

Hillsborough County Commissioner Bob Lester had to put aside his personal and moral feelings concerning Roger Stewart yesterday when he seconded a motion to rehire the former pollution control director. "It was strictly a legal move," Lester told the Times.

But Lester can't forget the past.

Stewart was rehired by a 3-1 vote of the county's Environmental Protection Commission (EPC) after special legal counsel, Paul Antinori, Jr. informed the commissioners that he did not feel he could successfully defend an impending court battle between the county and Stewart and the U.S. Labor Department.

Stewart filed a petition with the Labor Department after the EPC fired him on March 25 for "insubordination."

The Labor Department took on the case which might have set a national precedent and scheduled a public hearing in Tampa for August 22.

However, Antinori's one week review of the case found it to be baseless and defenseless.

Commissioner Carl Carpenter made the motion to rehire Stewart based on Antinori's recommendation, and Lester seconded the move.

But Lester's support of the motion contradicted his vote on March 23 that joined votes cast by Commissioner Bob Curry and Rudy Rodriques to fire Stewart.

Lester also seconded the motion to fire Stewart.

"How Stewart conducts himself will determine if each recommendation to leave him are forthcoming," Lester said.

NEWSPAPER ARTICLES

Local Ears Alerted to Noise Pollution	Tampa Tribune Marline Davis	1/1/76

Anybody who has ever tried to carry on a conversation at a discoteque, been awakened early on Saturday morning by a lawn mowning neighbor, worked in a factory where the sound of machinery echoed long after leaving work, or stopped at a red light while a helmeted youth revved up his motorcycle in an adjoining lane knows the true impact of the word "noise".

Metabolism increases. Digestion decreases, muscles tense.

Not only does the whole body get ready to go to war but the ears station themselves on the front-line.

Although scholars have been studying the various intensity levels of the sound ever since it was decided long ago to express sound levels on a logarithmic scale it has been only recently that environmentalists have been concerned with the excessive sound as a menace to public health, welfare, and the quality of life.

Noise pollution, while it has not drawn as much interest as air pollution, has reached such heights of concern you can get a citation form the Florida Highway Patrol if the sound of the cary you're driving exceeds a certain decibel limit.

"A decibel," says one of the men responsible for research which led to legislation for maximum vehicle (noise) decibel limits is the unit for describing the amplitude of sound."

"The decibel level of a home in quiet suburb might be 30," Dr. William Smith said, "while the level inside a sports car might be 75, and the level of a jet take-off might be 125."

Dr. Smith, a mechanical engineering professor at the University of South Florida has been the principal investigator in three years of research on community noises through a grant from the Florida Department of Environmental Regulation.

The noise expert who was involved in the air-conditioning industry before he became a professor, was one of the first people in the Southeast to begin teaching a course in acoutics and noise control.

The course which was first offered at USF in 1967 has had a steady popularity.

Dr. Smith said the Florida Department of Pollution Control became interested in looking into noise problems throughout the State in the early 1970's after the passage of the first National legislation on noise control.

"Legislation," he said, "came out of a growing concern about noisy machinery damaging the ears of people operating it. Although the Armed Forces have been concerned about the noise problem long before this," he added, "it was the air-conditioning industry that first began to recognize the problem as an industry problem and seek solutions."

Dr. Smith said much of the interest stemed from the fact that the industry began putting out a lot of "noisy jobs" in the 1950's and got a lot of complaints from people about such things as shaking buildings and rumbling fans.

"When the State grew interested in noise control," he said, "it realized there were not too many people who understood the language of the rather new field and looked to its universities for help."

Dr. Smith is part of team of 5 people from different universities who have been involved in this project.

The effort has been to identify community noises that are polluting, and find ways to control them.

By the use of sound level meter with dials which give noise levels in decibels, Dr. Smith and several of his students measured community noises in this area and compared them with levels known to be harmful from other research.

Noise levels were measured at such places as factories, discoteques, out-door concerts, sports car races, drag races, out-door car washing establishments and concrete mixing operations.

The impact of transportation noise on homes was also measured.

Transportation noises were identified as the primary community problem. Placing second was air-conditioning with barking dogs running a close third. (Dr. Smith said a noise problem is judged mainly by the number of complaints from the public about a particular noise.)

In response to the transportation noise problem, Dr. Smith said last year, the FDER drafted an ordinance specifying maximum noise levels for new cars and for the operation of all vehicles on State highways.

"It was passed by the State legislature," Dr. Smith said, "but enforcement was slow getting started because a special group of State highway patrolmen had to be trained to operate the sound level meters.

Patrolmen started issuing citations in July he said.

"Because noise control can most effectively be dealth with on the local level," Dr. Smith said, "his team of researchers is encouraging county and local governments to pass their own anti-noise regulations.

He's now actively involved with county commissions and environmental protection commissions throughout the west coast of the State, in efforts to help them write local ordinances, train personnel, and purchase equipment.

Within the last month the State research group came up with a model community noise ordinance to aid in this project.

Dr. Smith said the Hillsborough County Environmental Commission has prepared a draft of rules for the enforcement of maximum allowable noise levels permitted in this community. He expects the draft to be presented to the county commission early in 1976.

How do local highway drivers know they are in violation of the State noise control law?

Dr. Smith said the current law has permissible levels so high that only 3 percent of vehicles are in violation.

"Violators today," he said, "are those who have altered their (exhaust) systems by taking their mufflers off or putting on nonstandard mufflers which go by such names as bedders, straight pipes, or glass packs."

"Under the State law automobiles can not exceed 82 decibels at a distance of 50 feet from the line of travel and motorcycles can not exceed 86," Dr. Smith said, "explaining that anything over 80 decibels can be damaging to hearing if there is long enough exposure to those levels.

Dr. Smith's research discovered some automobile noises up to 92 decibels and some noise from air-conditioning and barking dogs up to 75.

Will effort toward reducing these noises and others in the community ever result in an absolutely quiet community?

"We must accept the fact that we live in an industrial area," Dr. Smith said, pointing out that efforts are designed not to eliminate noise but to bring noise down to a level that is economically feasible--"a level we can live with."

APPENDIX E - AIRCRAFT NOISE

E-1 Newspaper Articles

E-2 Memo on Home Mortgage Guarantees

TAMPA, FLORIDA, SUNDAY, JULY 3, 1977

MacDill's Jet Noise Continues To Irk Interbay Residents

By NASH STUBLEN
Tribune Staff Writer

To the 30,000 residents of the Interbay area who live with the roaring jet aircraft from MacDill Air Force Base, any weekday might be the Fourth of July.

While the sounds may be different, the people who live from the base north to Gandy Boulevard have built-in fire works from the noise created by the supersonic 4-FE Phantom II jets flying overhead.

And because of safety procedures that restrict traffic patterns of the present runway and last week's decision by the Air Force not to construct a new runway, it appears the noise level in the Interbay area isn't going to change.

Air Force officials say no further changes can be made on the northeast-southeast runway to reduce the noise level. They maintain that no new runway, no matter where it might be located at MacDill, could significantly reduce the noise level.

The Interbay Citizens Against Noise, a citizens' group that proposed the new runway, takes issue with the decision not to build it. But Air Force officials say the case for a new runway is closed.

Capt. Tom Kennington, base public affairs officer, said MacDill officials are fully aware of the noise problem, but safety comes first.

Planes, whether at MacDill or Tampa International Airport, must take off into the wind. Because of the prevailing winds, Kennington said, MacDill planes, at least 80 per cent of the time, take off and land in a northeasterly direction.

They climb to about 1,000 feet by the time they reach the perimeter of the base, and then bank to the east and climb to 1,600 feet before reaching Hillsborough Bay.

The bank to the east is one concession MacDill officials have made to anti-noise forces. Until about two years ago, jets would continue in a northeasterly direction over Davis Island. The only time this course is followed now is

See JET, Page 10

• From Page 1

when jets have to make instrument flights.

One of the questions that has been asked about the course the planes take is why can't the jets climb higher at a faster rate when they're passing over the residential area? And how can big commercial jetliners take off and leave Tampa International Airport hardly bothering residential areas?

First, Kennington said, MacDill planes can't climb faster because the Federal Aviation Authority assigns to MacDill planes a maximum of 1,600 feet of altitude until they depart the heavy Tampa traffic area. This puts MacDill planes about halfway between the air traffic from Peter O. Knight Airport, which is limited to a maximum of 800 feet, and Tampa International traffic, which must fly higher than the 2,600-foot level.

J.D. SEALE, FAA chief of the radar control tower at Tampa International, said MacDill pilots are given this assigned altitude before takeoffs because the FAA doesn't know precisely when they will depart.

After takeoff, however, the FAA tower can clear them for a higher altitude before they leave the area if the traffic situation allows it, he said.

Capt. Doug Silver, an instructor in the training program at MacDill, said MacDill pilots run the risk of crashing if they attempt to climb higher than the safety procedure allows.

With the nose of the two-engine jet lifted to a 12-degree angle, Silver said, "we lift off between the point of stalling and flying." Liftoff takes place about 2,900 feet down the 10,400-foot runway, he said, and the pilot climbs to 1,000 feet near the base perimeter.

Jet Noise Irks Interbay Residents

"**WE MUST MAINTAIN** that degree until we have minimum maneuvering speed of 300 knots," he said.

If that procedure is not followed and there is a malfunction, Silver said, a pilot could not recover and would certainly crash.

Silver said no pilot would attempt to talk to the FAA tower during the climb to 1,000 feet. This would come after he gets his maneuvering power, he said, but by the time he got clearance, he would have passed over the residential area.

Another safety factor, Kennington said, is that more than 100 flights a day involve the training of pilots for combat readiness in a plane that can fly two and one-half times the speed of sound and at altitudes above 60,000 feet.

Two-thirds of the 60 pilots being trained in six-month cycles, he said, have just completed an undergraduate training program.

IN A YEAR'S time, those student pilots have learned to fly only the T-37 subsonic trainer jet and T-38 supersonic trainer jet, he said.

The other one-third of the trainee pilots at MacDill are veteran fliers in other type planes, he said, but have had no experience in the F-4E.

Kennington said there are 17,940 takeoffs a year from MacDill and 23,205 "go-around flights." Go-around flights involve touching the wheels down on the runway, lifting off and circling around again.

Weapons training in the MacDill jets, which can carry up to 14,000 pounds of firearms, is done at the Avon Park bombing range. But Kennington said the touch-and-go training can't be done there because the runway is too short and is used only in emergencies. Supersonic flight training is limited to the Gulf of Mexico, at least 50 miles offshore.

One of the big noise problems for Interbay residents is the use of "afterburners" on takeoffs, which give the fighter planes an extra thrust on their departures.

KENNINGTON SAID residents experience a greater noise on takeoffs, but for a shorter period. The noise isn't as great on landings but lasts longer because the jets pass over the residential areas at an altitude of only 600 feet at a speed of 150 knots, he said.

A MacDill report has identified the overall noise area as extending north from the base to Gandy Boulevard. Census tracts in the county planning commission office show about 30,000 persons living in that area.

Another 6,000 residents live on Davis Islands, which feel the brunt only occasionally.

Residents of Coquina Key in southeast St. Petersburg also experience the noise problem when MacDill jets have to make instrument landings to the northeast. All landings to the northeast used to call for a traffic pattern over Coquina Key until MacDill officials conceded to moving the non-instrument landings two miles offshore.

While the noise problem goes on in the Interbay area, officials at Tampa International said the problem has been kept at a minimum there.

TAMPA INTERNATIONAL uses its two north-south runways to advantage. It's only when the winds are easterly or westerly or when instrument landings are required that Tampa International planes have to fly over heavy residential areas. And because the commercial jets are required to fly higher than the MacDill jets, the noise is less severe.

When the wind is out of the north, planes land from the south coming in over Tampa Bay. When the wind is out of the south, they land from the north, flying over an industrial park, again avoiding residential areas.

Officials said the east-west runway at Tampa International, which would cause some noise problems over west Tampa residential areas and Dana Shores, is only used about 6 per cent of the time.

John Colman, president of the Interbay citizens group, said he's convinced the Air Force has done all "they can to reduce noise as far as the old runway is concerned."

Colman, a former Air Force enlisted man who is now a private pilot himself, sympathizes with the problems MacDill faces.

"**WE'RE NOT OUT** to close the base. We realize the impact it has on the economy here," he said. "The people are better off enduring the noise than closing the base," he said.

But, Colman said, the "people in Interbay are taking a heck of a beating from the jet noise. We think the answer to the problem is building a new runway."

Colman said he doesn't buy Air Force officials' claims that a new runway won't benefit operations and won't reduce the noise in the Interbay area.

"I've traced the flight patterns," he said, "and I don't believe the change in full operations would shift the noise problem to northeast St. Peterburg as Air Force officials say it will."

Colman said one of the problems in getting the attention of the Air Force is the public apathy about the noise.

"**IF IT DOESN'T** affect them, they aren't concerned," he said.

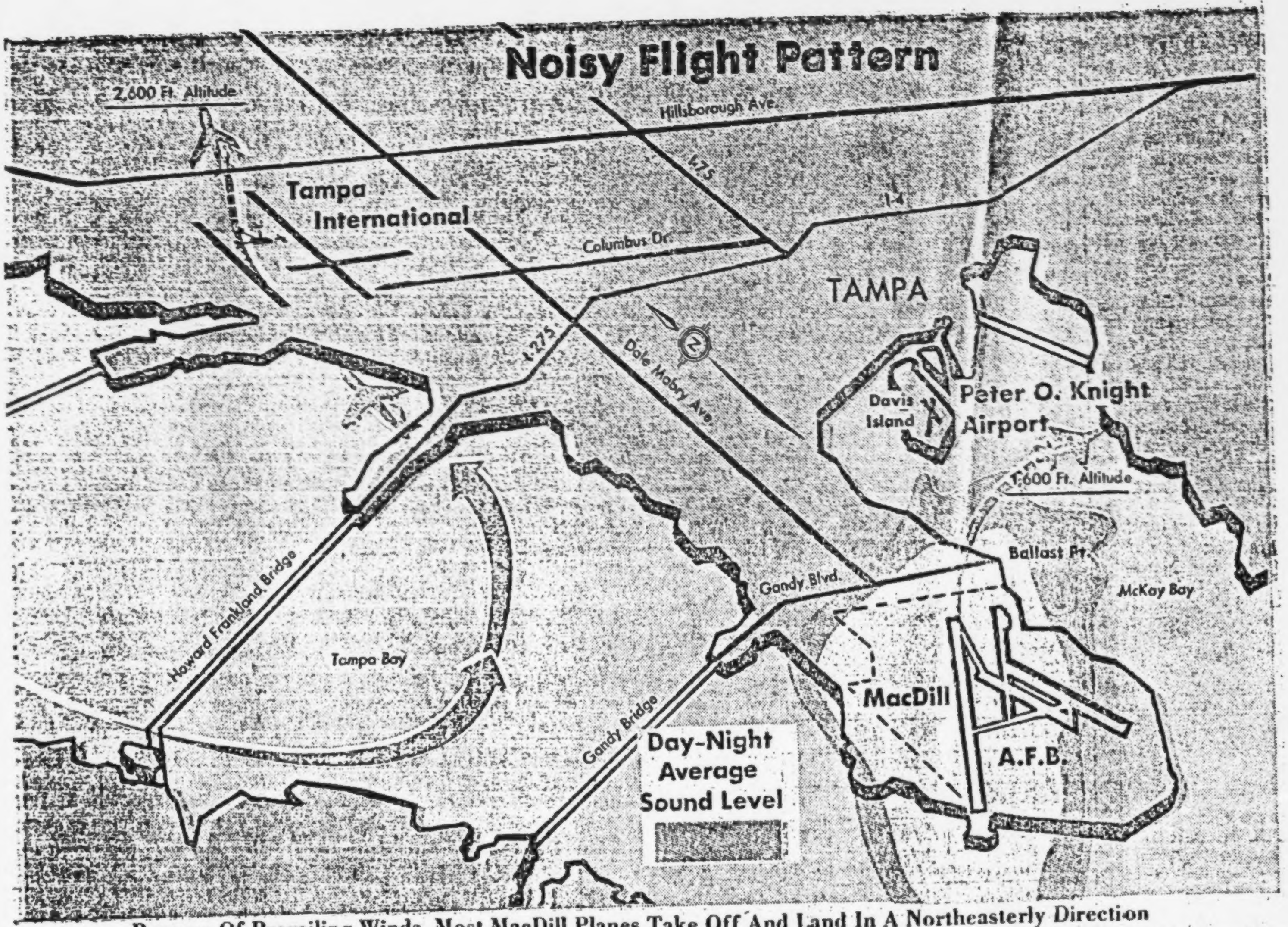
He said there is even apathy among some of the 500 "active memebers" of his group. The "hard core" of the Interbay Citizens Against Noise, he said, includes only about 12 people.

Meanwhile, in turning down construction of a new $105 million runway for MacDill, Air Force officials claimed, the Interbay area can anticipate further reductions in noise only when quieter equipment and procedures are developed.

Col. E.A. Bedke, commander of the 56th Tactical Fighter Wing at MacDill, however, said there's no way of telling when this will come about.

And, Bedke said, no one can predict at this time what MacDill's future role will be in the nation's defense.

Noisy Flight Pattern


2,600 Ft. Altitude
Hillsborough Ave.
Tampa International
I-75
I-4
Columbus Dr.
TAMPA
I-275
Dale Mabry Ave.
N
Davis Island
Peter O. Knight Airport
1,600 Ft. Altitude
Ballast Pt.
McKay Bay
Gandy Blvd.
Howard Frankland Bridge
Tampa Bay
Gandy Bridge
MacDill
A.F.B.
Day-Night Average Sound Level
▨

Because Of Prevailing Winds, Most MacDill Planes Take Off And Land In A Northeasterly Direction
they climb to about 1,000 feet before reaching base perimeter, then bank to the east and climb to 1,600 feet to cut down noise

Test Set on Landings, MacDill May Cut Noise, 6/14/71

Under fire because of noise from low-flying phantoms in the landing glide path extending over the souther tip of Pinellas, MacDill officials will test a new glide path early this week.

Lieutenant Victor Ines of the MacDill information office told the Times that MacDill and Federal Aviation authority officials had decided to fly several tests in a new instrumental approach system that will sweep up the mouth of the bay at 500 feet greater altitude than the 1,500 feet the present approach system calls for.

Because of many complaints received from residents of both St. Petersburg and Davis Island area, Ines said that the base officials have been considering for some time various alternatives that they might use in alleviating the noise. So far the most acceptable answer to Pinellas complaints is the new glide flight path. But according to Ines an entirely different method will probably be used for the Davis Island end of the field approaches.

Ines pointed out it is not true, as some complaints have suggested, that these jets are trying to take a short-cut home instead of using the over-water route. A pilot himself, Ines said that because of instrument landing systems and the 250 miles per hour approach speed of the aircraft, the pilots must follow a basically straight line flight path.

Ines said that no changes would be made until all the safety requirements were provided for. Whatever plan that is adopted would have to be a considerable improvement to justify any hazard to the pilot.

In addition any change in flight paths must meet with the approval of Tampa Approach Control and might involve changes in the flight paths of commercial aircraft as well to avoid any chance of mid-air collision, Ines said.

The Tampa Times Local Focus - New Rules Cut Airport Noise From Big Jets - by Tony Zappone, Time Staff Writer

Complaints of noise from huge passenger jets travelling at low altitudes near Tampa International Airport have quieted somewhat since local Federal Aviation Authority officials began concentrating on Noise Abatement Programs to "Clear the Air" of loud sounds.

Flight patterns have changed since the new ultra-modern airport went into operation last year bringing low-flying jets over some areas which didn't experienced noise before.

Complaints from irritated residents, not only under flight patterns, but from almost everywhere in the city, sent FAA officials on location to pinpoint and eliminate noise problems.

Annoyances Eliminated

"What we have done is set up a formal runway use program that will annoy as many people as possible." William H. Lupole, Deputy Chief of the Tampa Air Traffic Control Tower said.

"It used to be that cities built airports, but now airports are building the cities," he said.

Lupole said both commercial and residential developers were eager to begin construction close to the airport without considering the noise factor so paradoxically people are wanting to be near airports but now wanting to put up with the noise."

The FAA once received numerous complaints from residents about annoying jet noise and aircraft which interfered with television reception, but they are fewer now that something is being done about the problem. Lupole said.

The airport has two north/south runways and one east/west runway, which is used mostly by small aircraft.

Residents Complain

When larger planes use the east/west runway complaints pour in from Dana shores and residential areas from DALE MABRY towards town to the east.

Another noise problem area has been in the beach park area in south and several miles north of Hillsborough avenue between Benjamin Road to the west and Manhattan Avenue to the east.

The north/south runway on the east side of the new airport complex was built in 1961 to help eliminate some of the noise over Beach Park.

"This is a very sensitive problem that we are constantly working on." Lupole said. "We record every complaint and then when we find patterns we send people out into the neighborhoods where they remain to try to identify the reason for the loud noise."

"Sometimes the reason for noise is something unusual, like a traffic situation requiring low flight. We explain to the person what the problem was and they are generally satisfied."

Winds Have Effect

High winds have forced planes to drift over residential areas ordinarily not flown over upon takeoff.

As recently as last week, the Tampa FAA office sent directives to airlines requesting pilots taking off to the north to go at least two miles over undeveloped area before turning onto their course of travel.

Another directive in force for some time calls for pilots to make a right slight "as soon as it is safe to do so" after taking off to the south in order to avoid Beach Park and other areas south of the airport.

"Each time we ask the pilots to do something new to cut down the noise we get fewer complaints," Lupole said. "What we are trying to do is to get the planes over water or away from homes as soon as possible after takeoff."

An elaborate radar system monitored by a staff of eight to ten men keeps tab on direction and altitude of planes coming into the area and helps the control tower keep the residential areas free of noise.

Appreciation Expressed

The FAA received a resolution of appreciation from St. Petersburg Chamber of Commerce for assisting and finding another flight pattern for MacDill Air Force Base jet flights which formerly brought the aircraft over the Pinellas Point at close to the speed of sound.

The flight pattern was changed and MacDill was ordered to send its jets on a 200 degree compass angle on which now brings them several miles from the closest landpoint in the St. Petersburg area.

"We are trying to keep the jets as high as possible for as long as possible," Lupole said. "People just never get immune to the land sound of jets."

He said keeping the noise down is a lot of extra work for pilots especially on takeoff when they have so many other instruments to worry about."

"We will not compromise the safety of the aircraft to avoid noise," Lupole said. "We just can't risk people's lives to get away from flying over houses."

Doing All We Can

"But we are doing all we can everyday to make our airport unity a more quiet one." In addition to local FAA efforts some airlines are instructing their pilots to go through a reduced speed segment through 1,500 feet after takeoff to lessen noise at that point. Aircraft is again accelerated at 3,000 feet.

The FAA and the U.S. Department of Transportation last summer were cost sharing benefits up to 9 million dollars to the Boeing Company and the McDonald/Douglas Aircraft Company to determine the feasibility of fitting various jet aircraft with noise reduction devices.

"Locally our control towers are aware of all noise sensitive areas and our people assist the jets in avoiding these areas whenever possible," Lupole said.

Newspaper Articles

Tampa Tribune Times August 15, 1976 Al Scholin
MacDill Thunder Explained to Many Residents Who Hear It

On cloudy nights when strong winds are blowing from the earth some residents of Davis Islands occassionally find their TV picture fluttering and their window panes chattering in response to sound like rumbling thunder overhead.

To Davis Islanders there is nothing mysterious about these occurrences. They know that once again fighter crews in training at MacDill Air Force Base are being radar guided to a landing by Ground Controlled Approach (GCA). The glide path leading to a smooth landing is an invisible line angling skyward in a north-northeasterly direction from the end of MacDill's runway. At the southern tip of Davis Islands the glide path is 900 feet above ground.

It's reassuring, though for Davis Island residents to know as most of them do that MacDill's F-4's seldom need to fly that GCA pattern.

To learn about the factors governing air traffic in the Tampa Bay area the Tribune talked last week to Dave Vergason, director of operations at the Tampa radar control center (TRACON) operated by the FAA at Tampa International Airport, and to Lt. Col. Frank Phillips, assistant to the deputy commander for operations of the 56 Tactical Fighter Wing at MacDill.

This report is devoted to the traffic flight patterns at MacDill. Later reports will cover traffice at Tampa International and other major airports in the area.

Vergason explained that TRACON is in charge of all traffic in a cone-shaped area extending roughly 50 miles out from Tampa's control tower and to a height of 12,000 feet. That includes aircraft flying not only from MacDill and Tampa International but also from St. Petersburg, Clearwater, Peter O. Knight, Albert Whitlet, Sarasota-Brandonton, and a dozen or so smaller fields from the Brooksville to Venice and as far east as Winterhaven. Beyond the 50 mile radius and above 12,000 feet radar control passes to FAA's Miami Center.

FAA regulations encompasses two basic sets of flight rules. Vergason noted--VFR (visual flight rules) which a pilot may elect to use when his view of the ground and the air around him is unrestricted and IFR (instrument flight rules) under which he must fly on instruments and maintain radio and radar contact with FAA ground stations.

"Under VFR" says Vergason, "the pilot is generally free to fly any route he chooses so long as he stays under 18,000 feet. There are certain rules of the road and other restrictions he must abide by as there are on land or water. Buy by and large, he's his own boss. But when a pilot flies IFR he puts himself under TRACON's direct and complete control." In earlier years pilots requested IFR only if they anticipated bad weather over all or part of their intended route. Today, however, all commercial airlines and most privately owned high performance aircraft routinely operate under IFR for safety reasons even in clear weather.

And Col. Phillips emphasized so do the two man F-4 crews flying at MacDill. Though military pilots are free to fly VFR in good weather MacDill flight crews don't take off until their flight patterns are approved by FAA, and as soon as each flight is airborne the leader calls TRACON for instructions.

To residents living near the flight path at MacDill it is no wonder why MacDill's runways are lined up the way they are, Col. Phillips had this explanation.

"An aircraft carrier turns into the wind when it is launching or recovering aircraft," he said. "Runways on land obviously can't be turned so they are built to take advantage of the prevailing winds. In this area prevailing winds are north or south so most airports around here are oriented along a north-south axis.

Runways are numbered to correspond to the 860 degrees of a compass with north at 360 and south at 150. Tampa International's primary runways run due north and south so dropping the final zero its runways are designated 18 for planes land ing to the south and 34 for those heading north.

"The designer who laid out MacDill's runways 35 years ago chose to angle it slightly northeast and southwest so that we can occassionally fly even at a moderate crosswind. Our runways are numbered 04 for 40 degress east to due north and 22--40 degrees west of due south."

Vergason noted that MacDill's runway alignment is a benefit in controlling local air traffic. "MacDill is just seven miles due south of Tampa International," he said. "If the runways were lined up, the paths of aircraft and land ing and taking off would be in the same direction. As it is their fighters come in and go out at an angle to the flight path of our airliners."

Col. Phillips pointed out that MacDill's canted runway also minimizes low level flight over populated areas.

"Normally we use runway 04," he said, "the runway is long enough so that over F-4's can take off in a direction even with a 10-knot tail wind. Runway 04 points in the direction of Davis Islands but by the time the Phantom reaches the northern boundary of MacDill it's usually several hundred feet in the air and climbing at a 12 degree angle."

"Once over water, the pilot turns toward a more easterly heading of 070 degrees to avoid overflying Davis Island and Peter O. Knight airport. By the time he's over land again about at the mouth of the Alafia River he's high enough so that the noise of his jet exhaust is considerably moderated."

"From that point," he said, "MacDill's student crews head for one of two primary flight training areas--one over a sparsely populated land range roughly one hundred miles long and 50 miles wide runs from Ft. Meade on the northwest to Lake Okedchobee on the southeast including the air-ground gunnery range near Avon Park. The seemed major training area is over the Gulf within a rectangle beginning 50 miles offshore and in a line from St. Petersburg to Naples.

Chamber Defends MacDill as Man Flightly Noise Quits ------- 7/7/78 --- Nash Steublen, Tribune

The South Tampa Chamber of Commerce came to the defense of MacDill Air Force Base yesterday while the head of an Interbay Citizen's group said he is throwing in the towel, because of "public and political apathys" to the jet noise problem.

Reacting to negative publicity, the area south of Grandy Blvd. has received as a result of the problem the Chambers Board of Directors called a special meeting to unanimously adopt a resolution that endorses MacDill and acknowledges its economic and social contribution to the community.

The 17 Chamber Directors acting in behalf of 120 paying members and about 180 honorary members recognized the jet noise as a nuisance that has hampered the growth and development of the Interbay area and contributed to the deterioration.

But the resolution added it is evident that MacDill AFB is steadily correcting the problem by all methods available to them and that further exploitation of the conditions can and will contribute to a continuing decliners industry, commerce, retail trade and housing.

On the other side of the noise controversy, John Coleman, President of Interbay Citizen Against Noise said his groups sat back for 6 months for an Air Force study on a proposed new runway "that wasn't sincere."

Air Force officials said last week a proposed $105 million east-west runway to the south of the present northeast-southwest would not greatly reduce the noise problem in the Interbay area or improve operations at the base.

Coleman earlier said the proposed runway was located where an expensive fill operation in Tampa Bay would be required and that environmental damage would be done. He also disputed the study findings and called for an independent study.

Reacting to the Chamber's position yesterday Coleman said he personally has no plans to carry the flight further because of the lack of support from the general public and officials.

"As far as I'm concerned," he said, "its a dead issue. If the people of the Chamber want to take action so some Colonel can pat them on the back. Let them proceed," he added.

At the start of yesterday's meeting Chamber president Ed Worley said he had discussed the recent publicity with some directors and "we decided something should be done on the positive side. We've heard all the negative sides we want or ought to hear," he said. "We know we have the problem we don't want to hide it," he said. But he continued, "MacDill officials have been working to reduce the effects of noise caused by jets roaring overhead.

Chamber directors claiming the problem has been blown out of porportion invited Mike English, a county planner to the meeting to report on an Interbay land use study recently made by the county planning staff. In a questionnaire circulated among 500 persons in the area, he said, "75% thought MacDill was an asset to the community and 13% did not. The other 12% had no opinion," he said.

"Thirty-six percent," he said, "thought the jet noise was a 'real aggravation' and 32 percent did not."

Further study involving talks with environmentalist and other officials, English said showing that jet noise was 'very troublesome' along the flight pattern area was not a bothersome problem in a large portion of the area south of Grandy Blvd.

English said the Horizon 2000 Plan recommends changes in land uses other than residential only in the immediate area over which the jets fly.

The planner also recognizes the air bases importance to the economy he said, and that the jet noise is a problem for which there is no clear-cut ready solution.

John Rumbough, a real estate broker, and general contractor who had lived and worked in the Interbay area for 32 years pointed out the annual payroll at MacDill is a big asset to the Hillsborough economy.

Capt. Tom Kennington, MacDill Public Information Officer said the annual civilian and military payroll totals $78.8 million. He said county planners have put the overall effect on the economy at ....(missing).

Rumbough who drafted the Chamber's resolution said the county's tax appraisers office apparently doesn't feel the noise is a detriment to the value of the property in the Interbay area.

In the latest assessment he said, 36 of 73 pieces of property he owns in the area where increased -- 32 of them doubled.

Jim Brown a Chamber Director who lives in and operates a juke box business in the area, said the jet noise is nothing compared with the noise caused by freight train switching early in the morning.

Brown said he has made a small fortune in his business and his property assessment has doubled.

Charles Springer, operator of a mobile home park across the street from MacDill property said you can go anywhere in the county and complain long enough about a problem and it will make the papers.

Springer said the jet noise is not a problem to him and he added, "I'm not going to bite the hand that feeds me."

Fred Howard, another director who says he has lived and worked there 40 years and said he has grown to accept aircraft noises as a sound of strength.

December 14, 1972

MEMORANDUM

TO: ACE

FROM: Subcommittee on Noise (Roger Heupel, John P. Hilburn, William A. Smith)

SUBJECT: Noise Problem in Areas near MacDill AFB

It is the recommendation of this subcommittee that ACE suggest to the Tampa City Council that it adopt the following posture with respect to complaints from land owners, developers and real estate agents regarding the hesitancy of the V.A. and F.H.A. to enter into mortgage agreements in certain areas around MacDill AFB designated as "noise impacted":

1. The Council should accept the policy of HUD, FHA and VA as being both reasonable and flexible. These agencies rightfully discourage land development in areas that are not totally suited for housing. Their policy is flexible, however, and they will grant mortgage support in specific instances whenever the circumstances appear to warrant such action. Standard forms are available by these agencies to apply for waivers of their general policy.

2. The Council should not act to discourage or prevent the natural development of land near Mac Dill by new zoning restrictions. It is felt the area is too well developed already to enable its growth to be influenced by zoning restrictions.

3. The Council should require (either by enforcing existing laws or by enacting a new Ordinance) that sellers (or leasors) advise buyers (or leasees), in writing, that a noise problem exists in the area designated by HUD as "noise impacted" and that noise problems should be anticipated by the new owner (or leasee). The existence of such notice should be a condition precedent to the legal enforcement of any lease or sale agreement.

4. The Council should state to both sellers (and leasors) and buyers (and leasees) alike that it believes people are entitled to live in "Noise impacted areas" if they so wish (for reasons of their own) and that the Council's obligation ceases when it has assured that the buyer is advised there is a noise problem that should be investigated.

5. An extension of this policy can be made to require sellors or leasors of any environmentally polluted land (by noise, odor, smoke, engine exhausts, garbage, sewerage, etc.) to state in writing that a pollution problem exists that the buyer or leasee should investigate before signing contracts.

APPENDIX F - RACEWAY NOISE

F-1 Newspaper Articles

F-2 Public Hearing on the Amendment to the Noise Rule

County Cites Dragstrip For Cars' Noise

Appendix F - F-1 Newspaper Articles

1/9/76

By MARY ANNE CORPIN
Tribune Staff Writer

Hillsborough County's Environmental Protection Commission directed yesterday that a noise pollution citation be issued after Seffner residents complain that dragstrip noise drives them out of their homes on Sundays.

EPC Director Roger Stewart said the citation, against Tampa Dragway, will give the track 30 days to reduce "excessive and unnecessary noise, which is causing a public nuisance."

ROBERT JONES, EPC environmental specialist, reported to the EPC that "It is impossible for people in the general vicinity of the dragstrip to get any rest and relaxation on a Sunday afternoon, because of the explosive nature of the noise created by the cars."

The drag strip is on Black Dairy Road, just west of State Road 579, and adjacent to I-4 east of Tampa. Jones said the noise level during a race day measured 95 decibels in one residence when some cars started up on the nearby track.

Stewart said standing next to a jackhammer would be just as noisy.

About 50 residents, including many from a mobile home park near the drag strip, sent the county commission, which serves as the EPC, a petition asking that the dragstrip be closed down

COMMISSIONER Bob Curry, chairman of the EPC, said the first step will be for Stewart and his staff to "sit down at the conference table with the dragstrip proprietor, Billy Herndon, and ask them to put mufflers on the cars. This would cut down on the noise level as a first solution."

Jones and Curry said that some residents say they have to leave their homes when the dragstrip is open on Sundays, and go elsewhere.

One resident testified yesterday that a few of the dragsters have jet engines, and that the noise from them is unbearable

Residents also said the track should be closed because it is in an area zoned for agricultural use when racetracks require heavy industrial zoning.

JONES SAID the dragstrip has been on the same site "since about 1958 or 1959," and that people have moved in around it.

Curry said the dragstrip was "grandfathered in" when the land was zoned for agriculture and residential purposes.

"My first reaction was that the dragstrip was there first, and that the people should be aware of it and avoid moving there," Stewart said. "The county attorneys tell me that the precedent of the law says that you've got to expect people will migrate there, and then you've got a (noise) nuisance created automatically."

Jones said 45 people signed a petition in 1965 protesting the dragstrip, and sent it to the county zoning department.

HE SAID that besides placing mufflers on the cars, noise could be lessened if the volume on the public address system is lowered, and if a barrier is installed between the track and the residences.

Curry said that if the dragstrip fails to take action to reduce the noise, "We will take an adequate course of action, probably through a court injunction."

Commissioners also learned from their county attorney, Mike O'Brien, that a circuit court order has been issued against Essex Downs, an apartment complex on West Hillsborough Avenue. The owners were given 30 days to correct a problem of land eroding into Rocky Creek and an adjacent canal. The EPC had cited the complex for water pollution and obstructing navigation.

EPC workshop discusses noise at race track

noise pollution

By HOWARD BROWN
Times Staff Writer

3-2-78

Hillsborough County race track owners and nearby residents attended a workshop meeting of the Environmental Protection Commission today to voice their opinions on a proposed change in a law limiting race track noise.

Race track owners found problems with a proposed law which would limit both trackside noise and noise reaching residences near the track. Cars at Hillsborough County race tracks already must be equipped with mufflers to limit noise.

Also, nearby property owners have started to complain since the Tampa Bypass Canal was dug near the Golden Gate Speedway, said Frank Dery, Jr., owner of the race track on Fowler Avenue. The trees blocked the sound before the canal was constructed, he said.

Fewer state-wide and national drivers are coming to Hillsborough race tracks since cars were required to have mufflers, Dery said.

"We just can't live with noise levels of 68 decibels reaching the nearest property line," he said. The proposed law requires noise levels reaching property lines to be no more than 68 decibels.

Dery also asked that proposed race track curfew hours be extended from 11 to 11:30 p.m. Both Dery and a spokesman for East Bay Raceway, located near Gibsonton, said that there is no way to limit noise levels reaching nearest property lines. Varying weather conditions play a big part in the noise, they said.

"On a foggy or windy night, you get higher readings than on clear nights," Dery said.

"We don't want to close him out, we just want to rest at night," said Walker Hall, of Thonotosassa. Hall said Golden Gate noise has bothered him for years.

F-1-2

EAST BAY RACEWAY LOOSES NOISE FIGHT - 3/31/77

In what Environmental Protection Agency officials called a victory, Circuit Court Judge Robert W. Patten decided yesterday the EPC Director Roger Stewart could continue to cite East Bay raceway for noise violations.

Patten said raceway attorney Arthur Eggers did not show him that EPC citations were causing irreparable damage to the owners of the raceway. Irreparable damage would have been on grounds for an injunction against Stewart, Patten said.

Eggers filed a suite earlier this week as a blocking any more citations and also asking for a decision on whether the EPC must recognize a State statute that exempts auto racing from noise level regulations.

The EPC had been citing the Gibsonton track for exceeding county noise level standards since February 25. The EPC standards were instituted in June 1976.

Eggers and the track owners claim the county law is not applicable to the track since a similar State law passed in 1974 excludes established race tracks from noise level regulations.

The county and raceway owners agreed to meet with Judge Patten again on April 29 to determine if the county noise law can be applied to the track.

Until then race track owners Lonny Prevalt, Johnny Williams, and Jimmy Mingo said the track will continue to hold Friday and Saturday night races.

1st Step Taken For Race Track At Fairgrounds

10/17/78

By NASH STUBLEN
Tribune Staff Writer

Tentative agreement was reached Monday for construction of a half-mile race track at the Florida State Fairgrounds.

Two Tampa Bay area promoters said they will build the track in exchange for an exclusive on motor racing at the track for five years. The agreement is subject to negotiation of a detailed contract for presentation to the full Florida State Fair Authority membership.

Tentative approval was given in a meeting of Parke Wright, authority finance committee chairman, and Tom Torrence, authority development committee chairman, with J. Edward "Bud" Josey, promoter of sprint car racing. Josey also represented motorcyle race promoter Bill West.

Under the proposed contract, Josey and West would finance the estimated $75,000 for construction of the oval-shaped track on a 10-acre site set aside in the fairgrounds master plan for a race track just north of the administration and pavillion buildings.

The track would be 60 feet wide, with design allowing an additional 20 feet later. The base would be a four-inch composition of sand and clay covered by an eight-inch clay top.

In return, the authority would forgive any charges for use of the track by the promoters for two years to enable them an opportunity to recover their investment. For the last three years of the contract, the authority would get 10 percent of the ticket sales for the six racing events a year planned by the promoters.

During the entire five years, the authority would have rights to all concessions at the races and parking fees. In addition, the racing events scheduled during the state fair in the spring are expected to increase general admission ticket sales to the fairgrounds at U.S. 301 and Interstate 4.

At the end of the contract, Josey and West would have right of first refusal on continuing to hold exclusive rights on motor racing at the track for a new period of time. Terms of the contract could be renegotiated at that time.

In anticipation of a track being built later, the initial construction of the comparatively new fairgrounds provided stands for seating 4,000 persons. Josey said the promoters intend to rent temporary bleachers to double the capacity for their events.

Josey, operator of the Horseless Carriage Shop in Dunedin, said he would hold an antique sprint car event in connection with his antique collector car auction and flea market Feb. 15-18 at the fairgrounds. A motor sprint car event would be held during the state fair but the third event next November hasn't been decided yet, he said.

West plans two-day motorcycle races during the same time periods. He was promoter of the American Motorcyclist Association national motorcross championship finale at the Sunshine Speedway in Pinellas County.

Under no conditions, fair officials said, would they sanction any weeklong events. They pointed out that racing events would have to conform to noise pollution standards enforced by Hillsborough County Environmental Protection Commission.

Legal action authorized against noisy racetrack

The Hillsborough County Commission today delegated to its environmental protection agency the power to seek legal action against Golden Gate Speedway if it continues to violate established noise levels.

"In effect, this allows the Environmental Protection Commission (EPC) to go to court and close the raceway down," Commission Chairman Fran Davin said. "They can use the county's legal staff to get the ball rolling without waiting" for the next time the county commission sits as the EPC, she said.

EPC director Roger Stewart said reports from his staff show that the racetrack can operate within the 78 decibel limit set by the federal Environmental Protection Agency.

"This limit is regularly violated by the racetrack, and we should have the power to resolve this dispute if the circumstances continue," Stewart said.

Commissioner Bob Curry agreed. "We've been through this so many times before that the next time there's a violation, strong action should be taken," he said.

Stewart said the EPC is continually getting complaints from residents near the track on Fowler Avenue near U.S. 301, now that races have resumed on Saturdays.

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HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION COMMISSION
THURSDAY, APRIL 13, 1978

Appendix F-2 - Public Hearing on the Amendment to the Noise Rule

The Hillsborough County Environmental Protection Commission met at 9:00 A.M. in the Board Room of the County Commissioners, Courthouse, Tampa, Florida, in regular session.

The following members were present: Chairman Charles Bean and Commissioners Jerry Bowmer, Robert E. Curry, Frances M. Davin and Bob Bondi.

Chairman Bean presented the Minutes of March 9, 1978 for approval. Motion was made by Commissioner Curry that the Minutes be approved as presented, seconded by Commissioner Davin and carried.

Chairman Bean next called on Roger Stewart, Director of the Environmental Protection Commission, to review the Public Hearing on the Proposed Noise Rule Revisions.

Mr. Stewart advised they had citizens present who had requested to appear before the Commission, but they were here on the matter of the Noise question and he was sure that they would hear them when they hear the others from the audience. He explained they had before them a duly advertised notice to amend the established Noise Rule of this Commission, Chapter 1-10 of the Rules of the Hillsborough County Environmental Protection Commission. This has been a matter of some concern in excess of a year, a matter of enforcement activities on the part of the staff and the Commission. As a result of the problems which have arisen regarding the operation of racetracks, as they hinge on the Noise Rule, Chapter 1-10, as currently established, they have sought to seek advice from the professionals and the staff has worked long and hard with individuals involved in this matter on both sides and the professionals that he mentioned in trying to derive some compromise. The compromise was before them today in the form of a proposed amendment to Chapter 1-10. In the course of the deliberations in this matter, there was a request from a member of the Commission to prepare a proposal which the staff simply cannot support establishing a certain high noise level. They had before them both proposals, that of the staff and that requested by Commissioner Bowmer specifically. The staff recommendation incorporates changes precisely as recommended by Mr. Fagen, Consultant to the Commission at a fee. His report recommended a certain decibel level as a compromise. They have in the staff recommendation incorporated that noise level also as a reasonable compromise. Specifically, the noise level recommended is a change from an established level of 60 decibels up to 10 o'clock in the evening or 55 decibels after 10 o'clock, a change from that figure to a flat figure of 68 decibels. This change, because of the logarithmic nature of the scale used to measure noise, amounts to almost twice as much allowable noise as the original rule. He repeated that the amount of noise being allowed as a compromise is almost twice as much noise as now established in the Rule 1-10. What they are doing, in effect, is asking the citizenry and apparently they are relatively willing to accept twice as much noise as a compromise with the race track and that is what the difference amounts to. Commissioner Bondi asked who the citizenry are that he referred to. Mr. Stewart replied he was referring to the people who were burdened by the noise. He said to give them a comparison of the alternate proposal which was before them and does provide for a higher noise level up to 80 decibels, it allows four times the noise, four times more than is now currently allowed by Chapter 1-10. There is a provision, and there has been a lot of expression by this Commission that they ought to preclude such things happening in the future, that if somebody wants to build a race track, there should be a mechanism whereby they can build the race track and still not get into trouble with the law when they try to operate it. This is accommodated by a legitimate exercise of review which is provided for in the basic Hillsborough County EPC Act and is used for other facilities like factories, sewer plants and this sort of thing, simply a review by staff to ensure that anybody's proposal for a new facility would meet the standards of the law. Usually by this mechanism where the technical staff detects problem areas before they occur, they can work out some kind of a compromise, some kind of a resolution of the problem, and they have done that repeatedly with all kinds of facilities in this area. He said this is not a new thing and he was referring now to what they have down as Section D. - Approval Required. This is a mechanism which is provided for under the EPC Act which enables staff and an applicant to get together and work out the details, ensure that the operation intended will in fact comply with the law. It does provide a quorum which he was sure they would endorse where the applicant and the staff get together and work out any problem areas before they occur. He emphasized this is not a permit. They would not seek to issue a formal permit. It would be a review, much of it done by Building and Zoning and themselves in matters of this kind. It is simply a technical review. The Director is simply the staff person who does this sort of thing on a day to day basis, but he wanted to remind them that the Director acts on behalf of the Commission, so in effect the Commission controls what is approved and disapproved. As a mechanism for that is the routine permit review which they have endorsed at every meeting, or ratified. He remarked that is the compromise. They have followed strictly the recommendation of Mr. Fagan. They have also incorporated certain recommendations or requests by Attorney Mary Taylor who represents certain citizens involved in this matter and they found her requests to be very valid. They have, even though not ver batim, done so in spirit, at least incorporated everything she has requested. He stated they find them very a propriate recommendations and have no trouble. He emphasized that they do not seek to close down any race tracks. He is not against racing and in fact rather enjoys it. He thought, like many other things, it is a traditional aspect of current American life and has its place. This rule is not intended to stop racing as such, but it will require some accommodation on the part of those who wish to race and will absolutely require good mufflers which are becoming more and more widely accepted in the racing business nationwide. It may in the instance of the Golden Gate raceway require some accommodation in the way of embankments or more sturdy sound speaking with respect to sound attenuation, more sturdy walls and this sort of thing. He pointed out there is a very close proximity between the Golden Gate raceway activity and the citizens who are affected by that noise. The citizens who are affected by the noise have certain rights to peace and quiet in their homes and the carrying on of their lifestyle without having it unduly infringed upon, and he hoped that the compromise the staff recommended will, in fact, allow both activities to take place with a little accommodation on both sides.

Commissioner Bondi asked Mr. Stewart, for example, if in the future the State Fair would like to introduce racing to this area, would they have to comply with the same rules that these other tracks have to abide by or are they a separate operation? Mr. Stewart replied that they would have to comply with precisely the same standard that would be required by the other established tracks. Assuming adoption of the Rule, they would require an approval, but the approval, in his estimation, would work in their benefit. He reiterated, this is not a formal permit, that there is no permit document. It is simply a requirement that they come in and present the technical details of what they want to do. They will be technically reviewed by competent staff people and providing that it appears that the operation they wish to conduct will comply with the law, they will get a letter of approval. He said they see no problem whatsoever in the Fairgrounds accommodating to this proposed rule.

Chairman Bean asked if it was his understanding the reason for the statement was the proximity of the race track in the middle of the Fairgrounds. Mr. Stewart responded as he understands the potential location, it seems that the place to put it is near where the so-called grandstand is now where they have certain automotive activities. This is bounded on one side by the Fair itself and nobody in a Fair situation is going to object to the sound of the race. On the north side it has the Interstate highway as a buffer, so he saw no problem with having a race track at the State Fairgrounds. Commissioner Bondi asked if the same thing could happen to the Fair when people start moving around that area, because they are having problems now with residents complaining during that two week period. Mr. Stewart replied it could become a problem and he would have to say that about any race track activity anywhere in the County. He pointed out that this is controlled by the County's zoning authority and other established mechanisms and it behooves anyone who has any kind of input to this sort of thing to do what they can to prevent one activity being permitted to co-exist or go in where an established activity is occurring which is inconsistent with the first activity. The fact that this would take place is not a fault of this law, in his estimation. He thought to protect the interests of something like the Fairgrounds that one should be very cautious as to what kind of activity is allowed to move in next door to them. Commissioner Davin stated at the time they zoned for the Fair, they zoned that area which is not developed into the Fair community zone, so she thought they could expect no more residential building to the east of #301. Mr. Stewart remarked in that case, he did not see that this law would ever cause any infringement on the desires of the Fair people. In fact, it is designed to enable facilities like that to operate and not infringe on the public generally.

Chairman Bean stated at this time that they had requests by certain citizens who wished to be heard.

Reverend Ben Johnson appeared and stated, first of all, he wanted to say they are not trying to close the race track. He said he loves racing and the people who operate the racing vehicles, but he hoped they will be able to cut down the noise at the race track. There are times when they have meetings during the evening that you can't hear what the other person is saying in the building. He said they have waited too long to try and reach out to see what can be done about this. They would like to see the noise reduced so that some of their neighbors will be able to sleep in peace.

Chairman Bean asked Reverend Johnson if he agreed with the proposed ordinance that includes levels of 68 and 96. Reverend Johnson replied they would like to get it as low as they can. Chairman Bean explained they had a Workshop on this and they are trying to work out a compromise and before them is two levels. This is the lower of those two levels. The other compromise is 80 and 102 decibels. Reverend Johnson stated he did not agree with that. He said the later at night it gets, the louder the noise gets.

Reverend A. L. Brown next appeared representing the Hillsborough County and Tampa Inter-Denominational Ministerial Allowance. He said he was present to speak on the noise pollution of the Thonotosassa area that involves the Golden Gate Speedway. He does not live in that area, but two years ago he spent much time in that area during the racing season. In his opinion, it was almost unbearable to find any comfort. He stated he has a son who drives a race car. Having served out there in church services, it is unbelievable that they could become so involved in a recreational matter that they would disturb and erupt a religious worship, he remarked. He said he received some information from residents in that area that was brought to their Allowance last Thursday and it seems that the act which is being carried out there is not in accord with the law that was enforced or constituted in 1964, because the noise out there now seems to be getting worse. He thought it was because of more involvement or more participants in the race. He understood that racing is an exciting sport and for many of the racers that is their livlihood. but he wondered if there was some adjustment that could be made for the residential conditions. Chairman Bean asked Reverend Brown to address himself to the two ordinances before them this morning. He explained in one ordinance they are proposing a decibel level of 96 at race side and 68 at the property line. The other ordinance they are proposing is 102 at track side and 80 at the property line. Reverend Brown advised he did not have that before him at the time.

Mrs. Walker Hall next appeared and stated she lives on Walker Road directly across from the race track. She and her husband own their home and the land there and they have lived there since 1952. The race track was opened in 1964. She remarked the noise even jars their house. Usually they sit on their porch in the summertime when the weather is hot, but now they close the house up and remain inside when the races are on. It is very uncomfortable because they do not have air conditioning. They cannot hear their telephone and can only watch the pictures on television. Chairman Bean asked if the decibel ratings had been explained to her. He asked Mr. Stewart to explain it relative to what they have been accustomed to and what they can anticipate under each of the proposals.

Mr. Stewart explained that the established law, Chapter 1-10 of the Rules of this Commission now establish that the maximum allowable noise level affecting your home or lifestyle is 60 decibels until 10:00 P.M. and 55 decibels after 10:00 P.M. until 7:00 A.M., which is a little lower level to protect you when you are asleep presumably. He said both East Bay and Golden Gate violate that law. The noise levels are substantially in excess of what the law allows. He said both race tracks have been the subject of enforcement action on the part of this Commission. In an effort to resolve this problem without shutting down the race tracks, what they have before them today is a compromise in the form of an amendment to the now established Rule. The compromise would allow an actually higher level of noise as a legal thing. This higher level is not broken down in day and night, but rather is consistent throughout the time of the race and would allow up to 68 decibels as opposed to 60 or 55, depending on the time of day. This amounts to approximately twice as much noise because of the nature of the noise scale which is used. Chairman Bean asked what decibel hearing they were accustomed to hearing out there on a normal night. Mr. Stewart replied they were accustomed to hearing up to about 96, possibly in excess of 100 decibels at Golden Gate at the property line. In the case of East Bay, the levels are lower than that, but they are up around 90 at some of the peak readings, but certainly in the 80 range. Chairman Bean advised Mrs. Hall that the proposal would cut that rating from 90 all the way down to 68. She asked if that would be lower than it has been and was told it would be. She said that is what she was asking for, that it be lower.

Chairman Bean stated he would like to hear from the racing group at this time.

Reverend Dale Brooks appeared and stated he is Pastor at Calvary Temple which is on Davis Road, very close to Golden Gate Speedway. He lives, as the crow flies, probably within one-half mile of the Speedway. He has found no difficulty in conducting regular family life as usual with the noise levels as they are. He also is the Chaplain at the Speedway and he has found a tremendous ability to cooperate with people. He said they cooperate with them and it seems a shame to try and restrict a recreational area that is lifting up God and country and family unity because of a noise level. He stated they have never had their services interrupted because of noise level and they have never had their home life interrupted because of noise level. He can sit any night they race with his windows open and watch television and there are no buildings between him and Fowler Avenue the way they are situated. He has found that Mr. Deary, as well as the owners of East Bay Raceway, are working most diligently to keep the noise level as low as possible.

Reverend Jack Fortner, Chaplain at East Bay Raceway, next appeared. He stated East Bay is doing a fantastic job and he was sure Golden Gate is also of trying to curb the noise level. Just in the past few months he has noticed it has come down a great deal and he believes that people should try to get along with the situation.

Mr. Robert Smith of Gibsonton stated he would like to know why out of 3,000 short tracks in the United States that these two are the only ones that have noise problems and that is not including supe speedways. Chairman Bean responded that it was his understanding from his staff that this is being addressed in other parts of the country. He stated they were here specifically to address the revisions to the ordinance and asked that they speak directly to the ordinances in front of them.

Mrs. Berta Thomas next appeared and stated she was a Minister's wife. She lives about one and a half blocks from the race track and in the summer months she has arthritis all over. The doctor has forbidden her from having a fan and she cannot open her windows because she cannot get any rest at night, and that was why she was present today. She said when they have church services, sometimes they have to cut their services short because they cannot hear what the minister is saying from the pulpit. Chairman Bean asked if she had something specific to say about the ordinances. Mrs. Thomas stated a man was out there two or three times to get the sound from the race track and he said it was really too much noise. She felt when you get up to 90 decibels, that is too much. She said she did not want to stop them from making a living, but was just asking them to cut the noise down.

Mr. Mark Newsome next appeared and stated if they take a street car with the muffler system it has on it and strain the engine like they strain the engine for racing, the last rpn they get out of it, they would be above the 68 decibel reading. He remarked, in fact, your average street noise is 70 decibels. He noted a band plays around 100 decibels, an orchestra about 90 decibels, so if they are going to restrict racing down to 68 decibels, then they will have to restrict other events such as football games down to the same thing. He said the decibel readings have to be where they can operate because they all have mufflers. The track put in a restriction about mufflers about three years ago and they have been clamping down. They all use special exhaust systems that they built and they have had to build mufflers into them. The muffler in his car is almost like his street car. Chairman Bean asked what, if any, unbearable burden would it place on him as a race car owner or driver to muffle the car down to where within a fifty foot radius it would only make noise of 96 decibels. Mr. Newsome replied he did not think the engine screaming itself from the actual engine noise, that you could get it down that low, especially the V-8 engine. He did not think they could get it down to 94 decibels. He thought the 100 decibels that Commissioner Bowmer proposed was much more realistic. He remarked you can only muffle an engine down so much and then get as much out of it as you can.

Mr. Thomas Lay next appeared and stated he lives out by East Bay. He said they have been fighting this thing from the day it started. He remarked he did not know where Commissioner Bowmer came up with the 80 decibels as it was not mentioned in the Workshop, but 68 was mentioned. He thought 68 was too high for them to live with and said he will still be against the 68. He said most of the people they heard do not live out there. They do not have to listen to it except when the races are running and they go to listen to it. He stated he was there before the race track and he is going to do everything he can to keep the noise down regardless of where or how far he has to take it.

Anita Sharp next appeared and stated she thought this whole thing points out the ineptness with which their zoning has been handled previously. It allows people to build where existing race tracks were and race tracks to come in where people were, and it does not mix too well. She said one thing she wished to point out which she thought was most relevent to the discussion is that they did hire a consultant to give them recommendations based on what she would assume would be health parameters and that recommendation was what the EPC was basing their recommendations on. She felt if they ignored his recommendations, they were setting a bad precedent on setting pollution standards for the County. She stated she would like to know what Commissioner Bowmer's recommendations were based on. Were they based on what the track could operate under or were any considerations made as to how the residents could live? She said she realized this was a very tough decision for everybody to make, but if they are going to hire people to make recommendations who should know the work in their field, she thought they ought to listen to them. She did not think the people in the audience really understood what a decibel level was unless they played a tape for them. She thought it was difficult for lay people to understand this.

Frank Derry, Jr., owner and President of Golden Gate Speedway, next appeared and stated he had in his hand the actual time of running a race at Golden Gate Speedway, which is similar also to East Bay Raceway. He advised this past Friday night the first heat was 2 minutes, 42 seconds and 32/100ths. By the time they got another heat out and everything else, some time elapsed and the next heat was 3 minutes, 4 seconds and 48/100ths. The first feature was 8 minutes, 50 seconds and 38/100ths; the second feature was 6 minutes, 59 seconds and 17/100ths, for a total of night running of 36 minutes, 6 seconds and 42/100ths. On Saturday night, the program was 35 minutes, 96 seconds and 74/100ths. He noted it was mentioned that they couldn't hold church services. He stated he is not against any church and is the member of a church. He is the one who initiated prayer at his race track and was proud to announce that last year was the first year that they had a Minister at their race track and they had less injuries last year than they had in fifteen previous years. They do not run on Wednesday nights. Normally their program is on Friday and Saturday nights. In regard to Mr. Stewart's statement about putting up additional barriers, he said he has already spent $16,000 on a sand barrier and has spent over $5,000 on trees in front of the race track. Also, they have initiated the muffler rule. He thought the race track has done a lot to try to abide by the rules. He was not forced to put mufflers on the automobiles, but did this voluntarily because he knew it was coming.

Chairman Bean remarked from what Mr. Derry said, he appeared to be willing to cooperate in the area of the mufflers and he believed that was principally what they were asking - that they muffle the cars further. Mr. Derry stated they can live with Commissioner Bowmer's recommendation. Chairman Bean asked why they cannot muffle them enough so that they only create a noise of 96 decibels, the other recommendation? Mr. Derry responded if they have to go to 96, that they possibly could go down that low but he would not stand up there and say they could. Commissioner Bowmer recommended 102, but Mr. Derry thought they could live with the figure of 100.

Timothy Lee next appeared and stated he is involved in the sound business and does know a little bit about it. When he read about this in the paper, he went out and purchased a new sound level meter and made some measurements himself to get an idea of how loud the track was. He advised the average street traffic level on Friday, March 24th at Fowler and Jefferson was 80 db's. This is with cars and trucks passing. These measurements were made approximately 50 feet off of Fowler and Jefferson. It was his understanding that the majority of complaints were coming from the travel park area, so the majority of their measurements were made over by the trailer park. They found that the late models had an approximate level of 70 to 79 db's as an average of 74 to 75 db's as it stands now. He thought personally that these levels are well within specification and that if anything, they should be raised slightly to be more in line with what some of the tracks up north are setting as limits, 99 db at property line. He remarked they are going to end up killing the sport at Golden Gate Speedway and at East Bay Raceway, and before they know it Daytona and Sebring are going to be gone too because of these artificially low noise levels.

Walter Hall next appeared and stated he lives right at the Golden Gate Speedway race track, maybe a 100 yards or a little less from the pit gate entrance. He said they are not here to try to close the track. He invited the Board to spend the night at his house to listen to the noise.

Grover Matlock next appeared, Executive Potentate's Aide of Egypt Temple Shrine. He said as was noted in the paper last week, they are moving their Imperial Council here which is a great asset to the community. He stated their budget is forty-two million dollars a year. He advised he has talked to the Nascar people and they have assured him that they can put on a Nascar race here in Tampa. He said he was expecting no less than $50,000 to go towards this budget that they have to raise every year. He asked Mr. Derry if they could use his race track and he told them they could have it free. He has worked on this for about three months and has not run up against a snag anywhere. He hoped the Commission would find it in their power to go with Commissioner Bowmer's proposal so that they can do this for humanity.

Roy Hinson next appeared and stated he has been involved in racing for approximately fifteen years. When he first started, there was no muffler system whatsoever on the cars that they ran. He said when Mr. Derry implemented this plan, he did not like it, so he did not race at Golden Gate Speedway. He went to neighboring counties to race. Now this has become the way things are done all over the United States, with mufflers. He stated he understood the people's problem who live close by with the noise, but that he has tried to do his part also in helping these people because out of his pocket he has spent approximately $500 the last three years on muffler systems. He indicated he would like to support Commissioner Bowmer's proposal. He commented if they are presently running at 100 decibels, there is no way that they can bring it down to 68.

Attorney Mary Taylor appeared representing the Happy Travelers Campground and stated she has been before the Commission on several occasions with respect to this particular Ordinance and the amendment to the Ordinance. She was also present at the Workshop that was held and chaired by Commissioner Bowmer. She said she would like to address herself specifically to the two Ordinances before the Commission and would like to give some specific comments with respect to dBA levels. She reminded the Commission that the EPA (Environmental Protection Agency) has stated and has established that a 55 dBA is a proper limit because anything higher than that is injurious to the health of people. As a practical matter, they all understand that while it may be hurting our hearing and may be injurious to our health, society has evolved to the point where it is not possible to keep it at the 55 dBA level. With that in mind, her client came to her and they started discussing the alternatives and they sought the amendment of the Ordinance as it stands right now. They understood that it was very difficult to comply with the Ordinance in its present state. In the process of doing that, they also looked at the Consultant's report that had been submitted to the EPC here in Tampa. Initially they looked at the levels of 68 dBA there and were uncomfortable with it because they felt like it would be an annoyance to the residential property people adjacent to the track. However, in listening to all of the testimony and all of the points put together by the race track owners and operators and race fans and balancing the interest, they believe they could accept the EPC recommendation as it is proposed today with the 68 dBA off land and 96 on track limit.

She stated she would also like to reiterate to the Commission today a conversation she had this morning with a person in Tallahassee - Jesse Borthwick, Noise Administrator in the section of Noise Control with the State Department of Environmental Regulation. He has looke at both of the Ordinances before the Commission today and they discussed it in detail, noting some of the different dBA levels, and a specific comment was made to the 80 dBA level for off track residents. In his opinion, it was intolerable for residential use. Atto ney Taylor stated she would also like to remind the people who have appeared and talked about what the reading is on a street at 70 dBA' that that street is not being utilized and occupied as a residence. She remarked while they had a very exciting meeting here today, even the applause has been quite loud to her ears and if she had to liste to that applause at that level in her residence, she thought not onl would it annoy her, but it would interfere with her health. She sai her client is a residential property occupant and has people who occupy that place to eat and sleep and to live. She believed that a 68 dBA is certainly appropriate and 80 is certainly too high. A second comment she had to make was with respect to the question on the State Fair raceway and what can we do about that. She reminded the Commission that we have a developmental plan, the Horizon 2000 Plan, and it is supposed to be a comprehensive plan. With that and with the utilization of buffer zoning, you can certainly make it such tha you would not have residential property people who would have to listen to a raceway that was established at the Fairgrounds and she did not think that should inhibit their adoption of a regulation right now that is for 68 dBA.

Attorney Arthur Eggers next appeared representing East Bay Raceway, stating he appeared before them on a number of occasions. He advised he had a few comments to make in regards specifically to the proposed Noise Ordinance that has been presented both by Commissioner Bowmer and the EPC staff. First of all, he wanted to clarify wha he thought was a matter of fact. He noted the Chairman had been an advocate for the EPC's staff recommendation before the Commission today. He remarked the Chairman had characterized those as a compromise. He pointed out that at the time they began the Workshop sessi the EPC recommendation was almost identical to the recommendation he had now. There were little or no changes made in the noise levels to be recorded. The only one of these two Ordinances that proposes a compromise or a change is, in fact, the Ordinance proposed by Commissioner Bowmer. The issue here can very simply be stated as to the differences between these two proposals. One matter that has not been brought to the attention of the Commission is a matter of enforcement and approval as contained in the EPC staff recommendation and that is contained in the recommendation of Commissioner Bowmer. He pointed out to the Commission that on Page 2 there is a distinct difference in Commissioner Bowmer's recommendation that the Commissi control who will be approved to operate a race track and Mr. Stewart controlling who will be approved to operate a race track. EPC recommends that they have sole control of it. The recommendation of Commissioner Bowmer is opposite. He addressed the Chairman, stating the Chairman pointed out that a statement was made at the Workshop regarding 98 dBA. He said that statement was made by him (Mr. Eggers) and it was their compromise from the East Bay Raceway people. They felt that they might be able to meet those levels. The issue here is not the level at track side. Track side levels if they are set somewhere between 96 and 102, and they proposed 98 to 100, can be met by the drivers and by the tracks. He said their concern is with the property line levels that have been set by the EPC in their recommendation. They have recommended a figure of 68 dBA. He stated to the Commission at this time that it would be impossible under present conditions for his client and the people who race to comply with a sound level of 68 dBA at the property line of their neighbors. The reason for this has many multiple factors, but the main problem is the variables that occur because of this dual standard, that is a standard at track side and a standard at property line. They are faced with great variances with dBA readings depending upon the weather conditions and depending upon what night the track is operating. There are occasions where the dBA recordings at the neighbors property line are far below even the 68 now recommended, but there are also many occasions because of wind, moisture and other things where the dBA levels are, in fact, over the standards recommended by Mr. Stewart and the staff. The figure of 80 dBA's recommended by Commissioner Bowmer fits within variables that they can meet. Secondly, they are faced in the East Bay situation with the possible change in property use in their area. At the current time, they have one family or a group of families that comprise the Lay family who are the neighbors. There is much undeveloped property out there. At the present time, much of it is open zoning and a lot of it is commercial zoning also. They are also faced with the variable of Mr. Lay or his family or other persons changing the current location of their residence, establishing residences close to the track, and though they comply with the reasonable standard at track side, they are unable to comply with the variable standards that this Commission is trying to set as far as property lines. It would be their contention if it got into a matter of litigation, that the variation in enforcement that can occur by setting such a standard would go in face of our due process rights and property rights. He noted that the factors they are dealing with here as far as noise are personal factors. He pointed out to the Commission that the Commission itself funded a study by Fagen & Associates and this personal feeling towards noise can be very clearly pointed out in that the highest level of dBA noise they received at their fixed point and noted somewhat humorously by the writer of that report, was the sound of hogs being moved by the Lay family. He said the Lays like the sound of their animals because that is their business, but apparently the sound of race tracks and the noise are not. He remarked the sound levels of their commercial operation at their home far exceeds the levels that this Commission is asking to prove. He stated they have an enforcement problem and there are only certain ways that the owners and operators of these tracks can correct this enforcement problem, and that is the property line. He referred to the Beltsville Speedway study wherein the owner of that track, thinking that track construction could straighten up the problem, constructed 1100 foot long barrier of 20 foot high plywood that was 5/8ths inch thick. The report clearly points out that the man did not know what he was doing before he put it up because any acoustics expert would have pointed out to him that a barrier will not be a noise effective control. Fagen and Associates in their report of November 9th of last year, specifically studying East Bay's problem, recommended and stated to this Commission that barriers are not a cost effective means of control and that is what they are faced with here. Mr. Eggers further stated that his client and Mr. Derry at Golden Gate are businessmen. They are operating this for entertainment, but they are also operating for profit. He said if they get into an area where this Commission agrees upon the level of 68 dBA and they are not able to comply with that though they can comply with track side noise and they are unable to comply with that without investments of great amounts of money, clearly they are not going to be able to operate. They are going to be put in a position that Fagen & Associates have clearly stated is not a cost effective means of control. He remarked they have sought and have obtained the best mufflers for race cars that they can and which have been put on those cars. They have complied with the standards of EPC as set forth at track side and will continue to comply with those standards. This Commission, by setting up a standard that can be as variable as this standard can be, depending on wind direction, moisture content and other things, will make it impossible for his clients to operate, to meet the standards that are set, and it will become a cost prohibitive matter. The end result is a matter of dollars and cents and based on that, these tracks are not going to be able to operate. On behalf of his clients and the fans who attend East Bay Raceway, he would recommend and request that this Commission approve Commissioner Bowmer's recommendation for an Ordinance.

Commissioner Bowmer stated he had a comment he wished to make and also an observation. A couple of months ago this Commission authorized him to conduct a Workshop with all the concerned parties, which they did. After they had the Workshop, they delivered to the Commission members a copy of the Minutes of the meeting that was conducted during that Workshop. Their findings were spelled out in the amendment to the Noise Pollution Ordinance. They did add, in fact, a couple of dBA readings to what they thought was a compromise, basically because they wanted to give some type of leeway instead of having this thing brought back up again. He knew that everyone mentioned they don't want to close down Golden Gate and East Bay, but they do want to live happily and he understood that. That is a vital concern of everyone. In Paragraph 5 of the amended Ordinance, it states 102 dBA readings at track side. In his personal opinion, he does not feel that should have a bearing or should even be spelled out in the Ordinance because they are not concerned with what kind of dBA reading is at track side. What they are concerned with is that the people who live near the race track have their Constitutional rights upheld in order that they might live happily in their community. He said they addressed several points during the Workshop, such as conducting races on Sunday, setting different timetables down. They took that into consideration also and it is in the Ordinance. He thought what they were addressing here this morning was the difference between 80 and 102 dBA readings as spelled out in his Ordinance and what Mr. Stewart has indicated in his Ordinance. He stated that Mr. Jones took some dBA readings out at Golden Gate Speedway and even while the races were not running, there were over 68 dBA readings. With that rationale, if they have an Ordinance presently with the 55 dBA reading without the race track even running out there, the law was being broke and there was no consideration given, just like the race track was not even there. He thought basically what he has spelled out in the Ordinance, they could live with. He said if they have to resort to anything other than what is spelled out in it, then they might as well revert back to the 55 dBA reading and attempt to close down the two race tracks here in this County.

Commissioner Davin addressed Commissioner Bowmer, stating at the last EPC meeting when he could not be present because he was ill, both of these Ordinances were discussed and they at that time asked staff how the 80 dBA figure and the alternate Ordinance was developed and they were not able to answer. She asked if he could tell them how that 80 dBA was developed. Commissioner Bowmer replied that he mentioned a few minutes ago that the race track owners did not want a dBA reading at all and that they could not live with the 70's he believed it was. What they have done is take a compromise and added a couple of dBA's to what they thought they could live with, realizing that in this public hearing that a dBA can be changed like from 80 to 70 or 60 or 50. That was the rationale behind 68. Commissioner Davin asked if he used the Noise Consultant's figure and then amended that upward. He replied in the affirmative. She asked what the Consultant's findings were.

Mr. Stewart responded that the Consultant recommends two things and then explains the basis of it essentially. He recommends first of all a track side maximum acceptable level of 96 dBA. This is qualified by certain technical things, such as 50 feet from the vehicle, etc. He then recommends that the property line level be 68 decibels and he says this would be in order. This does create a departure, i.e. a compromise, from the present Ordinance requirement of 55 and 60 dBA depending upon the time of day. The intent, which is the same intent as the staff's and he thought most of the people working on it, that 68 dBA is intended by the Consultant and he quoted "The intent is to allow the track's activities to continue, yet to be considerate to the neighbors". He said he would qualify that with a couple of quotes from the last part of his recommendation and these bear on some things that Mr. Eggers said and took out of context. "The 96 dBA limit will not bother many cars, but will require the extremely noisy to become more reasonable". In other words, there are only a few cars presently that would violate the 96 and this is simply a requirement that would require as the Consultant puts it "the extremely noisy to become more reasonable". The result will be a far more tolerable situation to live with for the residents near the track. Furthermore, the distance involved at East Bay indicates that improved barrier construction would not be a cost effective means of control by virture of the great distances involved. One of Mr. Fagen's final recommendations is that Golden Gate on the other hand has residential properties much closer to the track and in this case barriers would be effective and maybe necessary to obtain reasonable levels at the residences, however, if the 97 dBA rule goes into effect and if complied with, the neighbors may be more tolerant.

Commissioner Bondi asked Mr. Jones, based on the tests he made out there, if he thought these people could live with a 68 dBA reading out there. Mr. Jones replied he thought they could live with 68. Mr. Stewart remarked he did not think they had anything that would give them a sound basis to recommend other than the 68 and they do consider the 68 a compromise.

Commissioner Davin stated they have probably reviewed this subject as thoroughly as they have ever reviewed anything that has ever come up in Hillsborough County. She said as she looked through all the information and all of the testimony they have taken, including all the professional testimony, she would move this morning that they adopt the EPC staff recommendation as it appears before them, amending Section 1-10:05.

Commissioner Curry remarked he could not understand how the decibel readings can be somewhat over 60, he believed Mr. Jones informed them, with normal traffic and trucks going by and when you add racing noise to it, how it can possibly stay down to 68. He wondered if there was not some compromise between the two that will give the citizens some relief and also keep racing which many people enjoy very much. He believed it will be a constant problem for race tracks if they set it at a level that looks like it is totally impossible to meet.

Mr. Stewart explained that among the peculiarities of dealing with noise - a decibel level noise is not directly additive to another deceibel level noise. He said if he had 50 decibels here and 50 decibels there from two different sources close together, he would not end up with 100 decibels, but would end up with something very much less than that. Secondly, they are maintaining that the 68 and the 96 are achievable, although there has been a lot of verbal testimony regarding whether or not you can achieve it. The key thing to his mind was the testimony or the report of the paid Consultant which they all hired who said that they can achieve that, and he repeated that the 96 decibel limit at track side which presumably results in a 68 within a reasonable distance will not bother many cars, but it will require the extremely noisy ones to become more reasonable. They viewed the 96 as a convenience to the race track operators. It is a tool whereby that will assist the evaluation of the vehicle. He said he could not give them the precise additive figure, but 60 and 60 is 3 decibels and makes a total of 63 decibels. This gives them an idea of how one adds to the other, so it is very possible to have something making a very high level of noise like the highway and allow a race track and still stay under the 68 at a reasonable distance from both of them. Commissioner Bowmer asked why it is even necessary to have in the Ordinance Paragraph C.5. where it relates to monitoring at track side. Mr. Stewart replied that early in the debates and discussions they had on this matter was a representation by the track operators of "how are we supposed to deal with it"? "How can we regulate our own business?" in other words. Mr. Stewart stated this is a means whereby they can regulate their own business by using a relatively inexpensive hand held instrument and seeking a location on the track which fits the technical standard of 50 feet from the center line. They can evaluate their own cars during the testing period during the trial runs and this sort of thing. He remarked that the basic law allows you to make all the noise you want if it doesn't bother anybody. He urged that they leave the 96 there because it honestly is an assistance to the track operators.

Chairman Bean asked if there was a second to Commissioner Davin's motion to adopt the EPC staff recommendation amending Section 1-10-5. There was no response. He asked Commissioner Bowmer to assume the Chair at this time as Vice Chairman.

Commissioner Bean stated he read the staff report and tried to look very hard for some reason why this staff report could not be lived with. He said perhaps it was a real burden on the track operators or the racers, etc. and he was unconvinced that it is a burden of an unusual nature trying to arrive at numbers that can be lived with. For that reason, he said he was inclined to take the staff's report and second Commissioner Davin's motion.

Commissioner Curry stated he could go along with a decibel reading of 78 at the property line. Otherwise, if they set it at 68, they are going to cost people money and are going to be back and back at EPC with this problem. They have been working on it for several years now and it has finally come to a head.

Vice Chairman Bowmer called for the vote on the motion and motion failed three to two, with Commissioners Curry, Bowmer and Bondi casting negative votes.

Motion was made by Commissioner Bondi to approve 78 dBA, and a compromise between the 96 and 102 to 99 dBA at track side.

Commissioner Curry remarked the top number to him, like Mr. Stewart stated, is mainly a tool for the track owners to use. He thought they should be free to use whatever tool they need to use to see that they don't violate the property line decibel reading.

Commissioner Bondi moved to approve a 78 dBA on the neighborhood line and leave the track side open.

Chairman Bean asked, for clarification on the motion, was he amending the staff recommendation motion with new numbers of 78 and no number on the end? He added, delete Item C.5. of the Ordinance and on C.2., change the 80 to 78 on staff recommendation.

Motion was seconded by Commissioner Curry and carried, with Commissioners Davin and Bean casting negative votes. The motion passed 3-2.

APPENDIX G - PERSONNEL QUALIFICATIONS AND NOISE CERTIFICATION TRAINING

G-1 Personnel Qualifications

G-2 Noise Certification Training
Manual (exerpts)

1922

ENVIRONMENTAL SPECIALIST I

MAJOR FUNCTION:

To perform technical field and office work evaluating, inspecting, sampling and testing in an air and water pollution control program.

An employee in this class investigates public complaints, conducts surveys and tests for violations of County and State laws. Duties include responsibility for field sampling and reporting of various atmospheric and water conditions constituting current or potential environmental hazards.

DUTIES: (Illustrative Only)

Investigates public complaints on air or water pollution.

Operates field test equipment such as high volume air samples, dust fall samples, manual gas sampling kits, dust collecting slides and similar ambient air sampling apparatus; records test results and effects on plant and animal life.

Assists in making routine analyses and in interpreting the results of laboratory tests.

Maintains inspection records for area of assignment; submits narrative and statistical reports.

May serve violation notices/subpoenas as required.

Performs related work as required.

DESIRABLE SKILLS AND KNOWLEDGE:

Knowledge of chemistry, physics and biology as pertains to air and water pollution.

Knowledge of the apparatus and techniques used in field testing for pollutants and industrial effluents.

Knowledge of the standard measuring apparatus used in qualitative and quantitative analyses of atmospheric and water substance.

Knowledge of the laws and regulatory codes applicable to pollution control.

Ability to evaluate laboratory test results with accuracy and judgment.

Ability to keep records and prepare narrative and statistical reports.

Ability to express ideas clearly and concisely, orally and in writing.

MINIMUM QUALIFICATIONS:

Graduation from an accredited four-year college or university with major course work in the physical sciences or other acceptable related course work; OR an acceptable equivalent combination of related education and experience above high school level.

SPECIAL NECESSARY REQUIREMENT:

Current Florida driver's license.

Approved: 2-18-71

PAY GRADE 28

1920

ENVIRONMENTAL SPECIALIST II

MAJOR FUNCTION:

To perform supervisory and advanced technical work in directing the activities of an Evaluation and Enforcement Division in the Environmental Control program.

This employee is responsible for planning, directing and supervising personnel engaged in evaluation project (s), tests and surveys. Duties include assigning personnel to specific tasks and instructing them in new and established environmental/pollutant control procedures. Employee has considerable latitude for the exercise of individual initiative and judgment. Supervision is exercised over professional and other technical personnel. Supervision is received from an administrative superior who reviews work through observation, reports of the department's activities and periodic conferences.

DUTIES: (Illustrative Only)

Directs and supervises the activities and personnel engaged in environmental evaluation and enforcement program. Instructs subordinate personnel as to work assignments and procedures.

Formulates and recommends policies and procedures which will insure the maximum utilization of personnel.

Reviews and participates in the more difficult or complex field tests and evaluation projects.

Develops improved techniques; studies new developments and tests new methods.

Reviews new developments in instrumentation and analytical techniques.

Serves violation notices/subpoenas as required.

Performs related work as required.

DESIRABLE SKILLS AND KNOWLEDGE:

Considerable knowledge of chemistry, physics and biology as pertains to air and water pollution.

Considerable knowledge of the apparatus and techniques used in field testing for pollutants and industrial and/or residential effluents.

Considerable knowledge of the standard measuring apparatus used in qualitative and quantitative analyses of atmospheric and water substance.

Knowledge of the laws and regulatory codes applicable to pollution control.

Ability to express ideas and findings clearly and concisely in both written and oral form to superiors, officials, lay groups and the general public.

MINIMUM QUALIFICATIONS:

Graduation from an accredited four-year college or university with major course work in the physical sciences and two years experience in an environmental control program or other acceptable related field.

SPECIAL NECESSARY REQUIREMENT:

Current Florida driver's license.

Approved: 2-18-71

Appendix G-2 - Noise Certification Training (exerpts)

A TRAINING MANUAL FOR
NOISE ENFORCEMENT TEAMS

Prepared Under Contract with the State
of Florida Department of Pollution
Control

by

University of South Florida
College of Engineering
Tampa, Florida 33620

Benjamin T. Condon
William A. Smith (Editor)

July, 1974

QUESTIONS

CHAPTER 1

1. What is a temporary hearing loss and at what sound levels can it occur?
2. What is a permanent hearing loss and at what sound levels can it occur?
3. What are speech interference levels (SIL)?
4. At what sound levels does sleep interference occur?
5. At what sound levels does annoyance occur?
6. Name four characteristics of the psychological stress responses to noise that occur in the body.
7. Can these stress responses be subconscious?

Chapter 1

1. Partial temporary loss of the hearing ability due to short term exposures to noise with a sound level in excess of 90 (dbA).
2. A permanent loss of 25 db or more in the hearing ability due to long term exposures to noises in excess of 90 dbA.
3. Those (background) noise levels at which reliable speech communication is barely possible.
4. Sleep interference may occur at 45 dbA or more.
5. Annoyance may occur at any sound level but generally occurs only when the offending noise is greater than 5 dbA above the background noise.
6. Changes in heart rate, respiration rate, gastric activity, pupil size and sweat gland activity.
7. Yes.

QUESTIONS

CHAPTER 2

1. What is sound and how is a sound wave characterized?

2. What is an impulse sound and how is it characterized?

3. Define a decibel and briefly describe why the pressure ratio is squared.

4. Why is the "A-scale" generally specified by noise control laws?

5. What is the total sound level in db if the sound pressure is doubled?

6. What is the difference in sound level from a source in a free field (i.e. no reflections) if the observer moves twice as far from the source? Why?

CHAPTER 2

1. Sound is a perceived change in air pressure induced by the passage of a sound wave or pressure pulse. A sound wave is characterized by its pressure amplitude (intensity) and its frequency.

2. An impulse sound is a sound produced by the passage of an impulse pressure pulse which is characterized by its peak pressure pulse amplitude and the duration of the pulse.

3. $\text{db} = 10 \log_{10} \left(\frac{P}{P_0}\right)^2$

   The pressure ratio is squared to make the db measurement proportional to the total energy of the noise.

4. Because the A-scale measurement most nearly represents the ear's frequency response to noise (which dictates the perceived noise level that is "heard").

5. The original noise level plus 3 db.

6. The sound level drops by 6 db. This drop occurs because the source (assumed a point source) radiates sound energy in all directions and this energy intensity decreases with increasing distance. The decrease is proportional to the inverse of the distance squared (inverse square law). When the distance doubles (a factor of 2) it results in an energy level decrease of 4 (double 2 according to the inverse square law) and a db decrease of 10 $\log_{10}$ (1/4) or 6 db).

PROBLEMS

CHAPTER 2

1. Given: Source 1 sound level is 80 db(A)
   Source 2 sound level is 86 db(A)

   Find: Total sound level when both source 1 and source 3 are "on".

2. Given: Source 1 sound level is 92 db(A)
   Total sound level is 95 db(A)

   Find: Source 2 sound level alone.

3. The sound level from a source is measured 56 feet from the source and its level is found to be 75 db(A). What would be the sound level at 25 feet? At 67 feet?

CHAPTER 2

1. 80 dbA (Table 1 Appendix B) 100.00
   80 dbA (Table 1 Appendix B) 398.10

   498.10 Table 1 ≃ 87 dbA (answer)

2. 95 dbA (Table 1 - 3162.
   92 dbA (Table 1 - 1585.

   1577. Table 1 ≃ 9.75 dbA (Answer)

   Check: 92 dbA Table 1 1585.
   91.75 db Table 1 1577.

   3162. Table 1 95 dbA

QUESTIONS

CHAPTER 3

1. An automobile is monitored accelerating from a stop sign in a residential area from a dead stop to 35 mph and the maximum noise level recorded (@ 50') is 80db(A). The background noise level is 50 db(A). Should the driver of the vehicle be given a citation? Explain.

2. A noise measurement was taken at 9:00 p.m. on a residential property line and the noise level indicated, while the source was operating at 66 db(A). The source proved to be a drainage pump located on a construction site where the background noise was 55db(A). Has a violation of the Pinellas County Ordinance occurred?

3. Noise measurements were taken on a residential property line and the peak noise level was determined to be 76db(A) at 7:30 a.m. The source was an intermittently operated heavy punch press located in an adjacent industrial complex. Is there a violation of the noise statute? If the source were located on an adjacent commercial complex would there be a violation? Explain.

CHAPTER 3

1. Yes. The law reads that a maximum level of 76 dbA shall not be exceeded under any operating conditions, i.e., accelerating, braking (squealing brakes included), etc. Note: The person recording the data should indicate that the speed limit applicable in the residential area was 35 mph or less.

2. Yes. (See section 3.3 Construction Noise.) Maximum Noise at night is 55 dbA.

3. (a) No. The punch press noise is impulsive which can be louder than normal noise by 10 db(A). According to Table 3.2 it is at the maximum allowable 76 dbA, i.e. (66 + 10) db(A).

   (b) Yes. Again it is an impulsive noise and since it is now located on a commercial site there is now a violation i.e. 76 db(A)   70 db(A) (60 dbA + 10 dbA = 70 dbA). Industrial activities should not be permitted in commercially zoned areas.

CHAPTER 4 - PAGE 3
PROBLEMS

3. If noise measurements at a site are taken and the total level is 85 db(A) and the background level is 79 db(A), what is the sound level due to the source alone? (Assume that the site is in a perfectly free field.)

Appendix F - Page 4

3. (a) At 56 ft. sound level = 75 db(A) This is added since
A db from table 2.3 = 7.0db(A) sound must be louder

22 db(A) at 25 ft than at 56 ft.

(b) At 56 ft. sound level = 75.0 db(A)
A db from 56 ft to 67 ft = 1.5 db(A) (8.5 - 7.0 = 1.5)

73.5 db(A) is soudn level at 67 ft.

Check for part B.
Sound level at 25 ft. = 82.0 db(A) from part A.
A db from 25 ft to 67 ft = 8.5 db(A)

73.5 db(A) at 67 ft.

2. Sound level measurements are taken at a property line in a residential area from a source located in a vacant lot (a well pump). The noise level indicated by the SLM is 80 db(A) with the site as shown in Figure P-4.2.

   (a) What is the direct field sound level of the source if perfect reflections are assumed? b) What is the maximum possible sound level of the source and why?

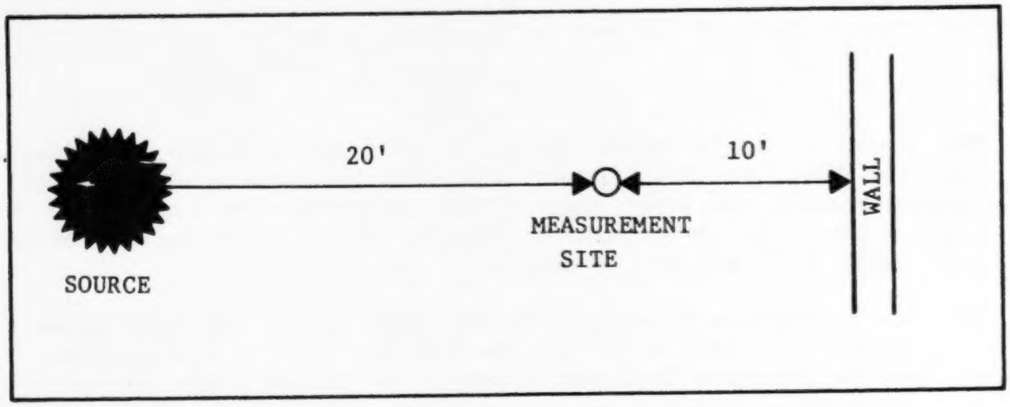

Figure P-4.2

2. (a) If there are perfect reflections then the reflected sound contributes 3 db to the total sound and the direct sound level from the source is (about) 80-3 = 77 dbA.

   (b) The maximum possible source sound level would be 80dbA and this would occur if the wall was assumed very soft (no reflections).

CHAPTER 4

1. What effect does the "slow" setting on a SLM have on the sound level indicated by the meter as compared to the reading that would be indicated by the "fast" setting?

5. (a) Why does wind cause "noise" that can affect sound level measurements?

   (b) How can these "noises" be reduced?

6. (a) Is the "A-scale" filter used when measuring impulsive type noises?

   (b) Should the meter be set to "fast" or "slow"?

1. The "slow" setting averages the sound level over a longer period of time than the "fast" setting does and therefore tends to smooth out small peaks and round out large peaks. This smoothing effect makes the "slow" reading generally lower than the "fast". (This effect is more pronounced for sounds which are not "steady").

5. (a) The microphone picks up pressure turbulence as the wind blows across it. This turbulence is characterized by fluctuations in the pressure field which results in "noise" being picked up by the microphone.

   (b) By using a windscreen for winds less than 15 MPH, and by not taking data when wind speeds exceed 15 MPH.

6. (a) Yes.

   (b) Fast.

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APPENDIX H

MISCELLANEOUS NEWSPAPER ARTICLES

Appendix H - Miscellaneous Newspaper Articles

ENGINEER CALLS X WAY ROUTE "SWATH OF NOISE" -- By Howard Gorham - Tribune Staff Writer -- 1/27/73

The Tampa cross town expressway will cut a nearly 700 ft. wide "Swath of Noise" through Tampa, a noise expert said yesterday.

Dr. William Smith, Associate Engineering Professor at the University of South Florida, said that he would seek a full public debate on the matter. Smith serves on the Tampa City Council's Environmental Advisory Committee and said this panel will start discussion on the matter soon.

"I don't think we have the right to inflict nervousness on people who live on the expressway," Smith said.

He added he was not trying to stop progress. I would be the last to do this, I am after a discussion. I invite debates so if they decide to go ahead everybody will be aware of the implications.

Smith said available data indicates a noise level about 60 decibels will reach houses or business 300 ft. on each side. He said the expressway is expected to be 100 feet wide. He said thus the approximate 700 feet.

Smith said that trucks on the expressway at night would send decibel readings up to 90 to 95 and that this would register at more than 60 decibels in structures 300 feet off the expressway.

He said that 60 decibels or more is above the limit that should be permitted and that 25% of the people living or working nearby would be affected.

PLANNERS TO DECIDE NOISE CASE - 3/17/75

City and county planning department officials were to recommend today that the developers of the Pinnacle, a highrise apartment complex located on Bayshore Blvd. remove a large air-conditioning unit from its present location because of noise problems.

According to planner Tim Powell the developer of the project, Scarfone architects and Corporated located the cooling unit next to a single family residence and the unit constitutes a noise hazard to occupants in the house.

Powell said the developers did not seek a site plan review on the location of the unit, and it was installed at the Pinnacle without the Planning Department's approval.

The Planning Department learned of the violation through a routine inspection of the high rise apartment. Last week planners and a noise specialist from the county Environmental Protection Commission viewed the unit and determined it constituted a health, safety, and welfare hazard.

Planners will make the recommendation that the unit be completely removed from the site and relocate it away from the house. The Pinnacle covers a city block off Tampa Bay and Knights' avenues.

Powell said the developers offered to build a twelve-foot high wall around the air-conditioning unit to buffer the sound but he said that was not the proper solution because the wall would be next to the residents and would constitute a violation of the city's building ordinances.

Planning commission members are expected to act on the recommendation today. Powell said it will be up to the city zoning department to follow through with a recommendation and ensure the noise hazard is corrected.

NEWSPAPER ARTICLES:

School Noise Levels -- by Anne Wurfel, Times Staff Writer

County Environmental Specialist Bob Jones believes noise levels at some schools "are not conducive to learning." And he intends to bring them to the School Superintendant's attention.

Jones who "knows the noisey parts of the city (Tampa)," nevertheless wants to accurately measure noise levels at all Hillsborough County schools.

"After I finish my measurement, I will ask John (Lizer) administrative assistant to the superintendant (if he wants my report in an official letter or if he wants to talk about)," said Jones.

Jones began his testing at Egypt Lake Elementary School last week where he measured a legitimate speech interference level--at least 5 dB above background noise - even though teachers on the Sligh avenue side of the school said it wasn't a typical morning.

"There are no ambulances, motorcycles, or hot rod cars," said one teacher who asked not to be identified.

Since Sligh was widened to four lanes coming off I-75, teachers say that the State DOT "has forced an intolerable situation" on them.

"The noise is so bad we have to close the doors and without air conditioning we melt and the children get drowsy," a teach noted.

"We're just not required to do for the children what we're required to do--teach them what is in the textbooks or what we need to do," she said.

Jones favors air-conditioning schools where noise levels are high because, "it would cut the outside noises, and increase the efficiency of children and teachers." The teachers said the principal has tried unsuccessfully to get air-conditioning.

"You're going to need action by the school board on this issue," Jones said.

There has been some speculation that part of 22 million in expected State bond money that may be coming to the school system next month may go for air-conditioning schools.

Classroom Teachers Association has gone on record as favoring air-conditioning as a priority item.

TRUCKS MAKE LEARNING DIFFICULT AT YBOR'S PHILIP SHORE SCHOOL -- 5/23/78 by Gail Cadow Times

Teachers and students at Philip Shore School have a problem.

For years noisy semi-tractor trucks have travel back and forth on the streets on three sides of the school which is located at 1908 Second Avenue in Ybor city.

According to staff the six grade center high noise level and frequent interruptions makes both teaching and learning difficult.

"When I first started teaching there I tried to talk over the noise but that got old fast. Now I just pause--sometimes for more than a minute," said teacher Dwight Lord.

Lord's classroom is on the side of the school that faces 19th Street which is the main drag for big trucks from the oil depots on their way to I-4.

Melinda Hunsburger has taught in a classroom bordered by both 19th Street and Second Avenue.

"I have to keep the windows closed, stop talking, and have the children repeat everything they say when those trucks thunder by," she said.

She added that the smell of gasoline was about her room constantly from the passing trucks.

This year Lord requested that the County Environmental Protection Commission (EPC) make a report on the noise level outside the school.

The noise sampling conducted by Robert M. Jones an environmental specialist with EPC was done on three days in March and April.

"The area is a very noisy place--traffic counts indicate a fairly steady flow of vehicles and approximately one truck per minute passed by the school," Jones said in the report.

He said the only solution to the problem was to air-condition the rooms that were affected by the noise.

Joe Hernandez, a teacher at the school said he went before the school board more than a year ago to ask for air-conditioning but the school couldn't afford it.

"We are classified as an old school and not eligible for state funds and the county said the budget was tight to get that air-conditioning for us," he said.

Mrs. Cecile Essrig school board chairman said she was aware of the problem.

"If any school needs air-conditioning that school, Philips Shore, does. But we haven't had very much local money lately," she said.

Another Shore teacher Elieen Miguel said this school had a special problem because it had no PTA to raise money for the air-conditioners which is what most elementary schools do.

"The parents really don't want to get involved because of the sixth grade center and the kids are only here for one year," she said.

About two years ago Hernandez contacted the city council to try to get another route established for the trucks.

"They passed a resolution for an alternate route and decided on letting the trucks use urban street from 19th Street to 22nd Street not nothing has happened yet," he said.

City traffic engineer, William Holsomback, said efforts to change the route have gone very slowly because the city was having trouble getting the land needed for right of way for the big trucks at the Durborn Street intersection.

He said the city had to go through condemnation proceedings to get the land because the owners would not sell it.

Hernandez said he had a better route for the trucks to get to I-4.

He suggested they take State Road 60 to 39th Street which turns into 40 Street and get on the Interstate from there.

"For safety and aesthetic reasons and for the redevelopment of Ybor city that (the latter) route would be best," he said.

Both Hernandez and Shore principal Olin Hill, Jr. said they were afraid "to push this thing to far because we don't want them (the school board) to take our school away," Mrs. Essrig said she was very sympathetic to the historical importance of the school to Ybor City, and I hope we can keep it."

SHEVIN TO PUSH NOISE POLLUTION SUIT 10/11/71

State Attorney General Shevin's office will push for an emergency hearing for a court-ordered halt of operations of a concrete plant in a residential area following resumption of the plant's operations today a specialist for the attorney general said today.

John Batcher said he will ask for a hearing after a spokesman for area residents in the vicinity of South Manhattan and Tyson Avenues called the attorney general's office today.

Shevin filed a suit last week asking for an immediate restraining order against the plant's operation whose dust and noise emission the suit termed "public nuisance."

The plant was not operating last week and circuit court judge John G. Bodges set a November 30 hearing. But today the plant resumed operations neighbor resident Donna Crosby said.

Joyner Concrete and Septic Tank Company operator of the plant also have an appeal hearing before the Tampa Board of Adjustment October 18 asking to continue operations.

The Board at the hearing earlier this year said Joyner must remedy "obnoxious" noise pollution or vacate the plant by October 1.

Present operation of the plant is not illegal because the appeal hearing set for October 18 was filed for before October 1 City Assistant Attorney Lewis Hill, said.

Joyner Concrete is a subsidiary of Tampa Sand and Materials Company.

BOARD ORDERS SHUT DOWN OF CONCRETE MIX PLANT - Oct. 19, 1971, -- by Lee Hinnant, (Tampa Times) Times Staff Writer

Mrs. Shirley Adams lost 33 pounds and took a job to get away from her home. Mrs. Donna Crosby and neighborhood residents were prevented from using their own back yards.

Mrs. Ann Cramer said she could hear not only mixing operations but also radio messages from the concrete mix trucks packed 25 feet from her bedroom window.

"You represent us. You have the power," Mrs. Tomasita Swillery told members of the Tampa Board of Adjustment.

"Didn't you tell them to get out or shut up by Oct. 1, " demanded Mrs. Cramer. Board members yesterday heard the testimony, then voted unanimously to uphold an earlier decision that Joyner Concrete and Septic Tank Company must abandon a concrete mix plant in the midst of a residential neighborhood along South Manhattan Avenue.

It was the fourth appeal lost by Joyner Concrete before the Board of Adjustment in occassionally stormy public hearings over a period of seven months.

At an April 26 meeting the Board ruled Joyner Concrete cease "obnoxious and offensive" noise pollution or close done by October 1.

An appeal by the company filed before Oct. 1 and stating a plan to reduce noise levels stayed that ruling. Yesterday Attorney James Holmes produced a ten-point plan to reduce the noise. It failed to impress area residents.

After the hearing, Board members ruled the concrete company must vacate the plant site at the 5300 block of South Manhattan effective immediately because it "has taken no appreciable steps to eliminate or reduce noise problems."

Residents can still not be assured their neighborhood will be free of the grinding noise of concrete mix trucsk and machinery. Assistant Attorney Louis Hill III warned.

Joyner Concrete can ask municipal court for a stay of judgement of the Board and can further appearl through the court that the decision of the Board be overturned, he said.

Still waiting is a suit filed by State Attorney Robert Shevin's office as an injunction against the Joyner Concrete Plan'ts operation as a "public nuisance."

A hearing is set for circuit court here, November 29. But the case becomes "moot" unless the Board of Adjustments decision is appealed, said the Attorney general's special assistant John Botcher who was present at the Board meeting yesterday.

THE STRAWBERRY SCARECROW -- by Phillip Morgan -- Tribune Staff Writer, 2/2/73

Shotgun Blasts From Dawn to Dusk Have Brought Repercussions From a Neighbor and a Citation From Noise Pollution

Travis Morgan has at least one neighbor and several anti-noise pollution officials breathing down his neck in attempts to silence the loud scarecrows which watch over his Ruskins strawberry fields.

But he didn't seem to be too concerned about it the other day as he stood in his field and talked between the earringing blasts of a nearby scarecrow, a gas compression device which emits a sound not unlike the report of a powerful shotgun every minute of the day from sunrise to sunset.

Morgan, a pleasant fellow (but of no relation to this writer), didn't even flench, while the more unaccustomed men around him practically dive for cover at the sound of the device. He said he needs his machines in order to keep the robins and quail from eating away at his income.

"Birds don't eat the whole berry; they just peck at it," he said. "If they ate the whole berry, we could fill them up and get them out of here."

Other than Raymond Brothers, a neighbor who complained about the noise to the Hillsborough Office of the Attorney General, Morgan said he has received only one complaint in three years he has been operating his devices, which appropriately are called pest chasers. The other man called him only once and never complained again, he said.

He said he did upset the neighborhood one time though, but that was because the gas he was firing to kill the weeds drifted over into the adjacent housing development. It was just like wartime, he chuckled. Two neighbors who live in mobile homes across the field said they have no complaints about Morgan's scarecrows.

"Hell no I've got no complaints," said Russ Wood. "That machine is a necessity and it is no worse than the noise of the trucks made when you live on the highway."

"Nope, don't bother us anyway," said El Tope. "In the daytime we don't pay any attention to it. You get used to it." Tope said it is like his cuckoo clock which he no longer hears unless he is listening for it. Tope said.

Tope said he can never get used to it. However, when he is standing next to it, "I know it is going to bang, but when it does it scares the hell out of me; it even scares those big, white birds."

Asked what he plans to do about a Noise Pollution citation he has received from the Hillsborough Environmental Protection Commission, Morgan said, "What can I do." He shrugged his shoulders in a way that indicated that he planned to do nothing.

"If they make one of us stop, they will make all of us stop," he said. (Roger Stewart, Director of the Commission, estimated that there are about thirty (30) farmers in Hillsborough using the devices, with a few living near residential areas."

"I called (County Commissioner) Bob Lester's office and the girl said she didn't think they (Stewart's office) could make me stop," Morgan said. He said the girl told him the citation was just routine.

David Woodward of the Attorney General's office said he wants to investigate further before deciding what action his office would take under Florida's public nuisance laws. Meanwhile the skys over Morgan's strawberry fields remain free of anything resembling a bird.

APPENDIX I - HILLSBOROUGH COUNTY WIDE NOISE SURVEYS: REPORT WITH ATTACHMENTS

Attachments 1 thru 4

Appendix I - Hillsborough County Wide Noise Surveys: Report With Attachments

NOISE

The overall noise problems that occur in Hillsborough County are generated by vehicular traffic on the highways and byways and jet aircraft from MacDill AFB and Tampa International Airport. With the increase in population expected by the year 2000 and increase in the number of jet aircraft flights, the ambient level of noise is expected to increase, providing that nothing is done.

You will note in attachment 1 that a City Noise Index was made in June 1978. The procedures for doing a quick survey are outlined in that paper, which also states the CNI to be 58 dBA within the residential area of Tampa and Temple Terrace. Though it was not stated in the paper, all testing sites were affected to some degree by jet aircraft overflies.

A lot has been said in the news media a short time ago about air conditioning the schools. A good number of people were convinced that it was for student comfort. Perhaps it was, but if one considered the "Speech interference level" within a classroom because of noise from the outside, perhaps these people would have thought differently.

Attachment 2 attests to this fact. This graph plots the maximum noise, the solid black line, against the ambient noise, L_{90}, as shown by the short dash line. The ambient level recorded is near 45 dBA during school hours. This is quiet. Can you imagine the utter frustration of a teacher, when she stresses a very valid topic, to have an F-4 from MacDill fly by registering above 90 dBA? How much of the teacher's word has the student heard? Probably, nothing. Yet, the teacher is chastized for not teaching and the student "flunks" because he cannot hear, all because of the noise generated outside the classroom. That is the biggest need for air conditioning in the schools.

The bond issued passed and the school board is air conditioning all schools in the system.

Aircraft are not the only culprits in Speech interference levels in a classroom. Trucks can do the same thing. A copy of a letter to Phillip Shore Elementary is attached as attachment 3. Noise was not as loud as at Ballast Point, but the L_{10} during school hours was higher.

There was a zoning petition made to change from R-1 to C-1 a house located on the northeast corner of Dale Mabry and Barcelona in Tampa. Sound measurements were taken as the petitioner thought the place was too noisy for a residence.

Attachment 4 depicts the sound level by hour of the noise at Dale Mabry and Barcelona in red and noise levels measured under the MacDill AFB jet traffic pattern in black. The reason for the comparison was to show that road traffic can be as bad, if not worse, than jet air traffic. Note well the L_{10} line. Only between the hours of 2 to 5 A.M. is the L_{10} below 70 dBA. That is a continual noise, all day and all night. By Housing and Urban Development (HUD) standards, this house did not qualify as a residence because of the noise, yet the City would not change the zoning to accommodate a realty office.

Note, also, the L_{10} under MacDill traffic was less than Dale Mabry. This infers the intrusiveness of aircraft noise, it comes and goes rapidly, but it is very loud while it is there.

Another problem in noise control is where to place a road. The X-town Expressway is a prime example. It was apparent that no consideration was given the people who live along the route. There is one home whose bedroom window is now nine feet from the fence line of the Expressway. At one time, the house was on a cul-de-sac, a dead-end road.

Attachment 5 illustrates another problem of the same kind. The lines of 605

Knollwood and 1512 N. Renellie are adjacent to I-75 southbound and I-275 westbound. It can be readily noted that 40% of the time the noise level is 70 dBA. At 1016 Cornwall the soundlevel is 70 dBA less than 1% of the time. In fact, the histogram shows that the Cornwall site is very quiet. At least it is quiet for now, for the I-75 bypass will be at the back yard fence line when that road is constructed. All is not lost, however, as a noise barrier will be constructed to abate noise in that area. This barrier will be 2000 feet long and 12 to 18 feet high as tentatively planned by D. O. T.

Not all noise is from roadways or aircraft. Attachment 6 shows what happens to the ambient noise level when a factory is "turned-on" for the day. It can be clearly seen the plant came to life at about 6:15 A.M. and was in the "gray area" of violations until 5:30 P.M. This is shown by the L_{90} graph of the ambient. The fluctuations of the maximum noise is caused by a combination of vehicular traffic on West Shore and MacDill aircraft in the not too far distance.

Again, this is a problem in "land-use". The company had been there a long time and the City of Tampa Council changed the zoning where the houses are now from M-1 (light manufacturing) to R-1 (single family residence). M-1 and R-1 are not compatible now nor will they ever be. This is one of the fallacies of spot zoning.

Golden Gate and East Bay Racetracks are a source of problems to people because of the nature of their business. It seems as if people want to pay good money to have their ears damaged by the roaring of the race cars. Thisis fine, if that is what they want, but it is not right for the racetrack to disturb those people who have no interest in the track and whose homes are bombarded with unwanted noise. It is virtually impossible to hear the audio of TV or listen to the radio when the races are on.

In early 1978 the County passed an amendment to the noise rule to accommodate the racetracks by allowing 78 dBA at the residential property line, but they also put a curfew of 11:30 P.M. to noon the following day.

The most aggravating nuisance there is in the field of noise control is the "trail-bike", the off-road motorcycle. They are everywhere and extremely hard to catch. Most of the bikes are ridden by teen-agers who believe the more noise the bike makes, the more power it has. This is not so, as the bike is tuned to the back pressure at the carburetor. All the noise does is give the riders an ego kick and the recipients of the noise high blood pressure.

The little problems are handled very easily. Little problems--a squeaky gear, a noisy fan or air conditioner, a rock band, etc. As a general rule these are short-lived. Again most people don't complain about noise during the day, but when it disturbs their sleep or interferes with their own outside activities, it becomes a nuisance--aggravation, etc.

NOISE

In June 1978, a survey of residential noise was made, using a technique suggested by Richard K. Miller & Associates, Inc., in a book entitled, "City Noise Index", dated 1 January 1978. References in this chapter are from that publication.

Making a comprehensive noise survey of any urban area can be time consuming and expensive. To overcome these obstacles, certain criteria were established whereby a survey indicated by Miller could and would be fast and inexpensive.

It is desirable for cities to measure their noise levels in order to assess potential environmental impacts to residents. Community noise is not just a nuisance, but can have an adverse effect on the people exposed to it. The potential negative attributes of environmental noise may be classified into five areas related to human health:

1. Physiological effects
2. Psychological effects
3. Communication effects
4. Performance effects
5. Social behavior effects

In order to assess noise in accordance with actual human perception of sound, the "A-weighting scale" was developed. The A-Weighting scale of decibels (dBA) modifies meter readings to correspond with frequency response curve to the human ear. The corrected noise level is called dBA and is the unit specified in the rules of the Hillsborough County Environmental Protection Commission.

Noise within the community fluctuates with time, primarily to variations of the noise source themselves. Thus, a single measurement of the sound level is not sufficient descriptor of the sound level. Statistical measures must be used to adequately describe the temporal characteristics of the acoustical environment.

A measure which has emerged as the most important descriptor of environmental noise, in terms of the effect of noise on ~~M~~man, is the Equivalent Sound Level (L_{eq}). The equivalent sound level (L_{eq}) is defined as the time-weighted, mean square, A-weighted sound pressure. The mathematical definition of the equivalent sound level (L_{eq}) for an interval defined as occupying the period between two points in time t_1 and t_2 is:

$$L_{eq} = 10 \log \left[1/t_2 - t_1 \int_{t_1}^{t_2} P^2 (t)/P_0 \, dt \right]$$

where P (t) = time varying sound pressure
P_0 = reference pressure = 20 micropascals.

Community noise may be specified in terms of day-night sound levels (L_{dn}). The L_{dn} is defined as the equivalent A-weighted sound level during a 24-hour time period with a 10 decibel weighting applies to the L_{eq} during the nighttime hours of 10 p.m. to 7 a.m.

The United States Environmental Protection Agency has designated the L_{dn} as the unit of measure for major noise surveys.

A Metrosonics dB602 Sound Level Analyzer was used in this survey as it has the capabilities of computing L_{eq} for any given length of time.

The City Noise Index is designed to measure the average L_{eq} between the hours of 10:00 a.m. and 5:00 p.m. in residential land areas. The daytime L_{eq} value is then used to estimate the L_{dn} for all residential areas of the city; For aircraft impacted areas of the city, such as jet noise from Tampa International Airport and MacDill Air Force Base, existing noise contours of those airfields are used in lieu of measured data. In this particular survey, trains were not involved.

A map of the City of Tampa and some of the suburban area was used. A square grid pattern of 0.2 mile increment was drawn on the map and each intersection would have a number given to it using a double random selection. When the initial site randomly chosen was not suitable, because of open water or non-residential or airport dominated, another site was selected.

There were certain criteria followed as listed in "City Noise Index", such as distances from roadways or homes, time discrimination as to the amount of vehicular traffic on roadways and certain discrimination against other parameters that may be normal neighborhood noises such as lawn mowers, children playing--not at a playground--as these noises in any short term sampling data would result in gross errors in the long term noise assessment.

The L_{eq} value during the daytime hours between 10:00 a.m. and 5:00 p.m. is expected to be 3 dB lower than the L_{dn} value which would be measured at that location. Thus a value of 3 dB is added to the arithmetic mean sound level to obtain the final L_{dn} value associated with the residential area of the city.

The area in this CNI survey encompassed an area of approximately 160 square miles of land mass, the north side limited by Fletcher Avenue as extended from Sheldon Road to the EAST ~~west~~ and a north-south line through the cloverleaf of I-4, 92, 301 to the east and an east-west line from Gandy Boulevard.

The Hillsborough County Planning Commission helped to estimate the number of people in the sample area to be 398,000.

There were 21 sampling sites randomly selected with an average L_{eq} 55 dB. Adding the 3 dB as discussed above, the City Noise Index is 58 dBA. Also, as previously noted this is the

L_{dn}, day-night noise level.

There were six (6) sites within the noise pattern of Tampa International. Data for these sites were taken from the TIA/DRI for lengthening 36L at the airport, data being listed as before and after lengthening.

The other 15 sites were physically measured using the Metrosonics dB602. The time was from 14 June to 22 June.

Motorcycles - off-road types - are still a large source of noise complaints. EPA conducted a hearing in St. Petersburg early in the year for public reaction to the proposed regulation on New Motorcycles. It was felt at that hearing that the new regulations will help the State and Local programs in the control of noise from all facets of the motorcycle industry.

Early in the year, the EPC Board set a maximum of 78 dBA eminating from a raceway. This evolved after a public hearing.

CITY NOISE INDEX

City, State TAMPA, FLA & Surrounding area

Population: 398,176

Area: 160.7 mi^2, Tampa, Temple Terrace and some County

Survey Date: 14-22 JUNE 1978

Investigator: R.M. JONES

Number of Measurement Sites: 24

~~Residential Sur~~vey Area:

Measured Average L_{eq}: 55

95% Confidence Limit: 3.4

Area of Airport Contours: 36 mi^2

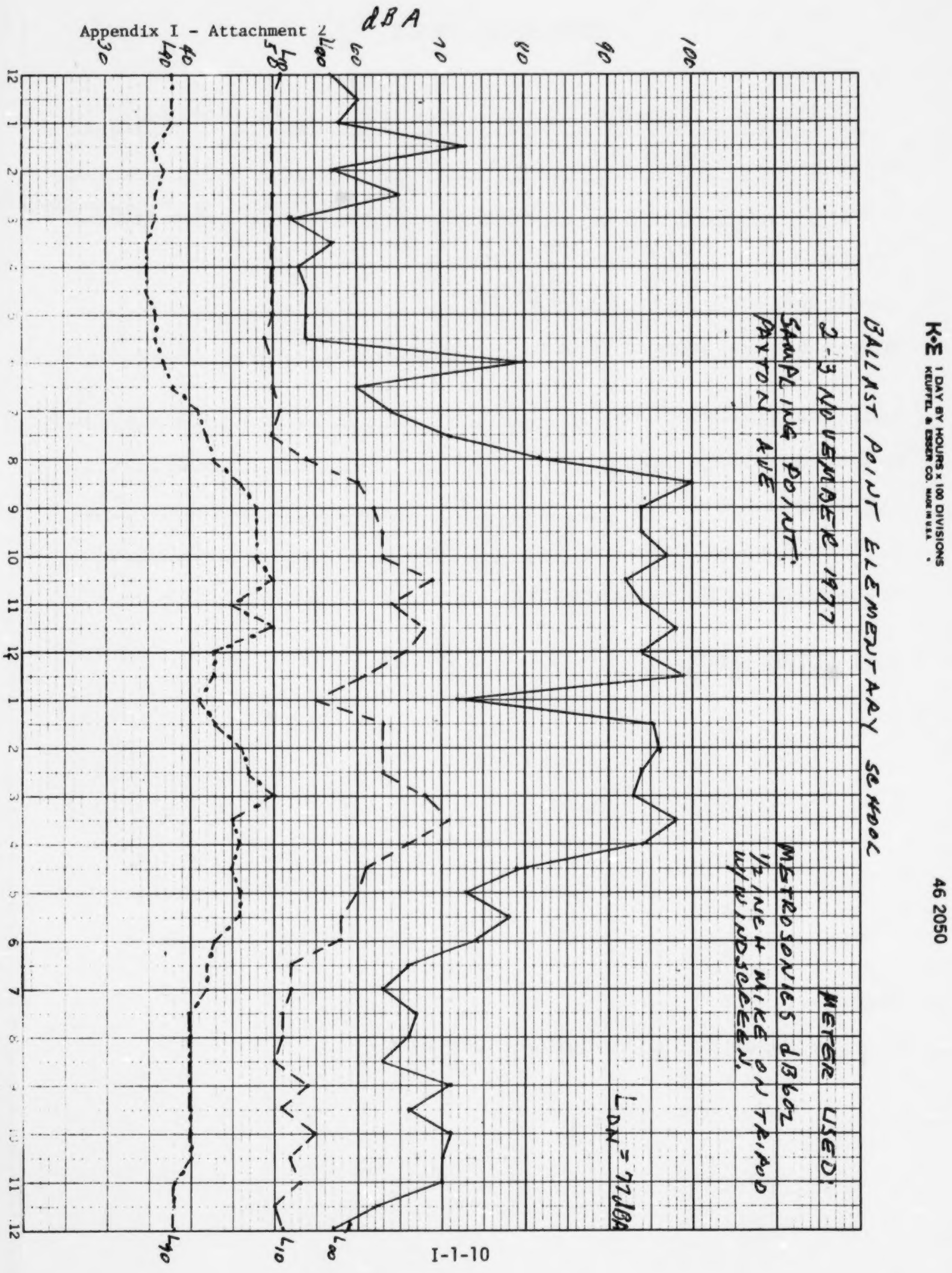
~~Area of Train~~ Noise Contours:

CITY NOISE INDEX 58 dB

Figure 7.

Summary Sheet for City Noise Index Study

Appendix I - Attachment 2



Appendix I - Attachment 3

ENVIRONMENTAL PROTECTION
COMMISSION
ROBERT E. CURRY, CHAIRMAN
JERRY BOWMER, VICE CHAIRMAN
FRANCES M. DAVIN, SECRETARY
BOB BOND
JOEL KOFORD

COUNTY of HILLSBOROUGH
Tampa, Florida 33601

ROGER P. STEWART
DIRECTOR

7402 NORTH 56TH STREET
BUILDING 500
TAMPA, FLORIDA [illegible]

TELEPHONE (813) 272-5960

28 April 1977

Mr. Dwight Lord
Phillip Shore Elementary School
1902 2nd Avenue
Tampa, Florida 33605

Dear Mr. Lord:

It took quite some time to complete the noise sampling at the school. Weather and excessive wind were the culprits.

The results are in and have been tabulated and the only conclusion that can be made is the area is a noisy place.

Three different samples of noise were taken; Test 1, mike on 19th Avenue side of school on 3-23-77; Test 2, mike on north side of school, 20 feet north of the north side entrance, on 4-4-77; Test 3, the mike was placed six feet from 2nd Avenue curbside and eighteen feet from 19th Street curbside. In all tests, a Metrosonics Model dB 602 Sound Level Analyzer was used to take the noise measurements. A 1/2 inch GenRad microphone with windscreen was connected to the analyzer, making it a precision-type meter, as set forth by ANSI S1.4-1971 specifications.

A count of traffic was also made during the hourly tests using two hand held counters counting vehicles less than 10,000 gross vehicle weight rating and those greater than 10,000 GVRW.

VEHICLE COUNT

	Less Than 10M GVWR	Greater than 10M GVWR
3-23-77	188	63
4-04-77	Not Taken	64
4-28-77	266	60

On 3-23, only traffic on 19th Street was considered. On 4-4, trucks only were counted and if a truck turned left off 4th Avenue to 19th Street, it was counted twice. On 4-28, truck and car traffic was counted as it passed through or turned at the intersection of 2nd Avenue and 19th Street. Traffic counts indicate a fairly steady flow of vehicles and approximately 1 truck per minute passed by the school.

Also another noise factor not considered elsewhere is the brick paving on 19th Street. This type of pavement will increase the overall vehicular traffic noise.

The results of the noise sampling follow:

Test #1	11:02 AM to 12:02 PM	23 March 1977
Test #2	10:48 AM to 11:48 AM	4 April 1977
Test #3	10:33 AM to 11:33 AM	28 April 1977

ALL dBA	Test 1	Test 2	Test 3
Maximum Noise	89	80	78
Noise Exceeded 1% of Time	79	74	77
Noise Exceeded 10% of Time	70	67	69
Noise Exceeded 50% of Time	61	59	61
Noise Exceeded 90% of Time	55	54	57

Noise will be reduced only 10 dBA through an open window, and 25 dBA through a closed window. The noise, with windows open, would still be loud enough to have a speech interference level (SIL) that would make a student have a hard time hearing the teacher. Keeping windows closed during warm weather is not possible as the heat becomes unbearable. Likewise, the windows cannot be opened as the noise will become unbearable. The only solution to this dilemma is air condition those rooms affected by noise.

If you need further information, feel free to call.

Sincerely,

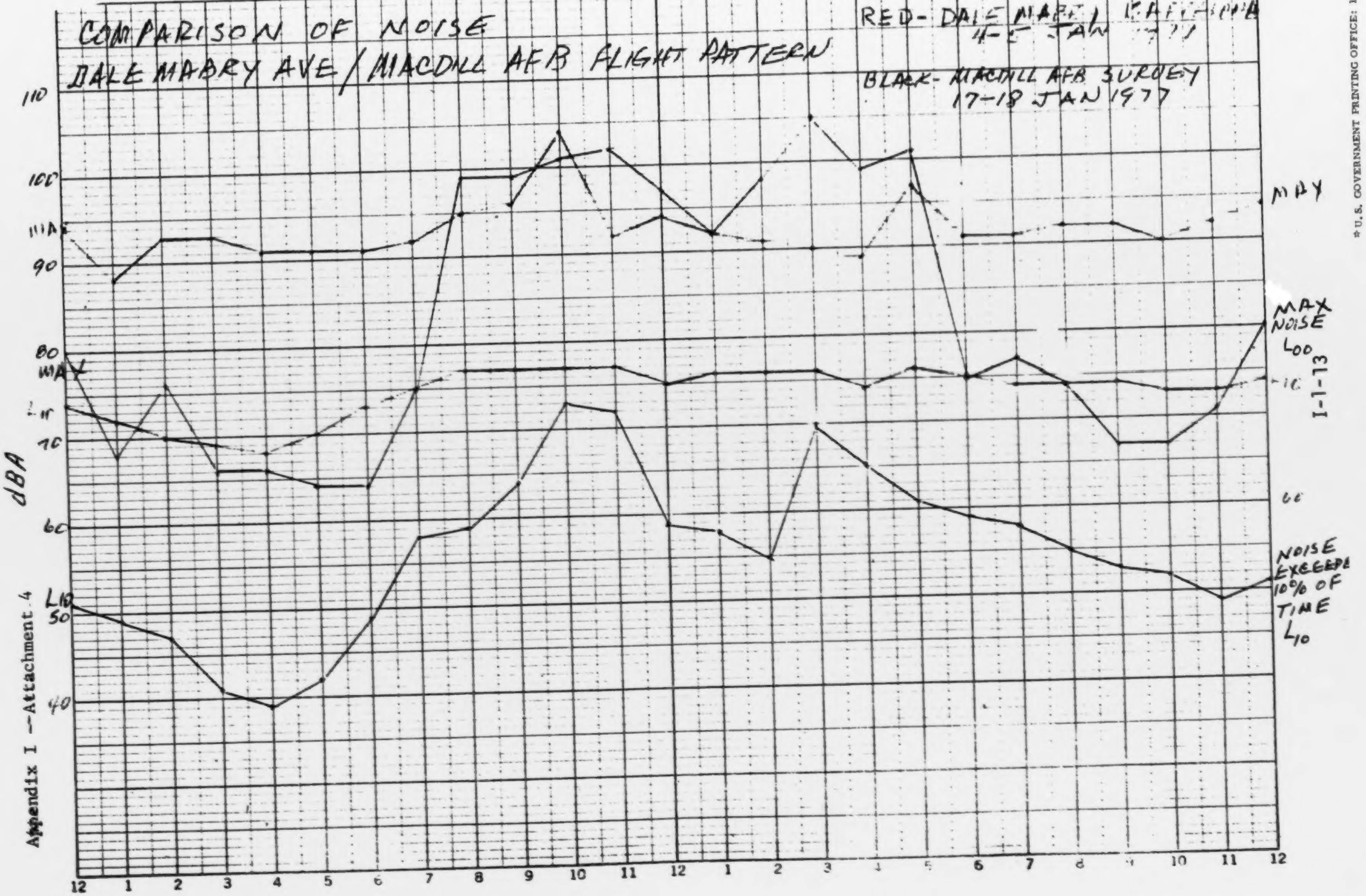
Robert M. Jones
Environmental Specialist
Hillsborough County Environmental
Protection Commission

RMJ/rr
w/Enclosures

Appendix I --Attachment 4

K+E 1 DAY BY HOURS x 100 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

46 2050



COMPARISON OF NOISE
DALE MABRY AVE / MACDILL AFB FLIGHT PATTERN

RED - DALE MABRY [illegible]
4-5 JAN 1977

BLACK - MACDILL AFB SURVEY
17-18 JAN 1977